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The Pennsylvania Dairymen's Association

Organized 1925

Succeeding the following organizations:

The Crawford County Dairy Association (1871)
The Pennsylvania Dairy Association (1874)
The Pennsylvania Dairy Union (1898)
The Pennsylvania Livestock Breeders' and Dairy-
men's Association (1916)

REPORT

of the

ELEVENTH ANNUAL MEETING

January 23, 1936

Harrisburg, Pa.

WARREN F. WHITTIER, *President*
Douglasville, Pa.

C. R. GEARHART, *Secretary-Treasurer*
Dairy Building, State College, Pa.

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The Relationship of the Bureau of Animal Industry to the Dairy Industry of Pennsylvania

The following talk was given by Dr. H. M. Kalodner, Director of the Bureau of Animal Industry, Pennsylvania Department of Agriculture on Thursday morning 9:30, Room F, Farm Show Building to the Pennsylvania Dairymen's Association:

DR. H. M. KALODNER, *Director*, Bureau of Animal Industry,
Harrisburg, Pa.

The importance of veterinary science grows as our animal industry increases.

The systematic campaign of the Pennsylvania Bureau of Animal Industry to prevent, control and eradicate transmissible diseases in livestock has made definite and substantial progress in the last two decades, having for its fundamental purpose the safeguarding of public health and the elimination of preventable losses in livestock production.

Tuberculosis and Bang's disease are the two most prevalent of the transmissible diseases that have caused great losses and concern to the dairy industry. The elimination and control of tuberculosis in dairy herds has placed this industry on a more profitable basis. The complex development of agriculture has placed the Bureau of Animal Industry and its activities in a position of paramount importance, especially in this Commonwealth. Approximately two-thirds of all the cash receipts derived from farm products come from the sale of livestock and livestock products; therefore, keeping our animals healthy is of greater economic importance today than ever before in our history.

Great need for efficiency in the production of dairy products is emphasized by the fact that Pennsylvania farmers have more than one-half billion dollars invested in the dairy industry and approximately 50 cents of every dollar of cash income from farm products in this Commonwealth results from the sale of products derived from the dairy cow.

Pennsylvania, the Keystone State of the Union, being the central colony of the original thirteen, became the keystone in our national development. It has taken the lead in basic and diversified industry. It is the birth place of American agriculture and as such maintains leadership in a successful agricultural system as far as economic stability and social serenity are concerned.

This Commonwealth has enjoyed a distinction of historic sig-

nificance due to the fact that the first tuberculin test of a herd of cattle for the control of tuberculosis in the United States was conducted on the Clairemont farms owned by Joseph E. Gillingham, a short distance from Villa Nova, Delaware County, in March of the year 1892.

This was the beginning of an important health movement which has since spread to practically every community in this great nation.

The first law requiring the tuberculin testing of cattle was placed on the statute books of this Commonwealth approximately thirty years ago. Organized effort for eradication of this disease dates from the formation of the original Pennsylvania Plan in 1896 by that learned authority, Dr. Leonard Pearson.

During the year 1896, 432 herds comprising 5,430 cattle were tuberculin tested in Pennsylvania at the expense of the Commonwealth, resulting in 1191 cattle being condemned, the percentage of reaction being approximately 22 percent.

During the year 1935, 76,545 herds comprising 656,265 cattle were tuberculin tested under Federal-State supervision, resulting in 15,029 cattle being condemned, or approximately 2.2 percent of the total number subjected to the test.

The Accredited Hard Plan was adopted in Pennsylvania July 1, 1919 because it represented the universal cooperative plan for the prevention, control and eradication of tuberculosis in the United States.

On January 1, 1936, 10,621 herds with a total of 183,651 cattle were operating under the Individual Accredited Herd Plan. Of this number, 8,459 herds consisting of 148,134 cattle were fully accredited.

The tuberculin testing of cattle under the Modified Accredited Area Plan was started in Pennsylvania in April 1923 and was generally adopted because it was realized that to more effectively control the disease, meet the increased requests for tests from herd owners, conserve the enormous expenditure of funds, that all the herds not tuberculin tested under the Individual Plan should be tested on a county-wide basis with a township as a unit.

On January 1, 1936 there were 172,612 herds and 1,255,399 cattle tuberculin tested under the Modified Accredited Area Plan or a total of 183,233 herds and 1,439,050 cattle under Federal-State supervision in Pennsylvania.

The initial testing of the last herd in Pennsylvania was conducted on May 15, 1935 in Earle Township, Lancaster County.

Fifty-nine of the total of 67 counties in this Commonwealth are Modified Accredited due to the fact that on the last test less than one-half of one percent of all the animals tested for tuberculosis were positive. It is anticipated that the remaining 8 counties will be accredited by June 1, 1937.

During the period 1897 to Decemebr 31, 1935, \$12,269,909.84

State indemnity and \$6,335,598.87 Federal money or a total of \$18,-605,508.71 was paid to cattle owners as indemnities for more than 327,000 cattle condemned and slaughtered. Our budget for the fiscal period June 1, 1935 to May 31, 1937 is \$600,000 and a \$200,000 Federal fund has been allocated to compensate owners for cattle condemned in connection with the tuberculosis eradication work.

We must not only be interested in maintaining our counties in an accredited status but take great concern in the further reducing and controlling the infection in the various herds of this Commonwealth. Experience has shown that constant vigilance must be employed to retain and maintain the progress which has already been made.

The livestock owners should appreciate the importance of proper sanitation and a practical system of herd management as a factor and influence in the spread of infection in their herds, or the resistance of individual animals. Periodic retests are an essential part of the plan in maintaining herds and areas on a tuberculosis free basis.

A common way in which herds become infected is by adding cattle, the health status of which has not been definitely determined. Owners are urged to purchase cattle from Accredited Herds, negative herds and Modified Accredited Areas or herds credited with at least one negative tuberculin test under Federal-State supervision.

Owners purchasing cattle for importation into Pennsylvania should be familiar with the tuberculosis and Bang's disease requirements governing the admission of cattle into Pennsylvania and not move any animals into the State unless the health requirements are strictly complied with. The value of dairy and breeding cattle is too great to be jeopardized by lack of care in the general management of the herd and in the purchase of cattle for admission to herds. Copies of our regulations will be gladly furnished to any dairy owners who makes a request for same.

Pennsylvania was the first State to buy and establish a farm where infectious and contagious diseases of livestock could be specifically studied under actual farm conditions through the assistance of a completely equipped laboratory.

The Pennsylvania Plan for the Prevention, Repression and Eradication of bovine infectious abortion (Bang's disease) was adopted in 1921 and has received the nation-wide attention of other State Regulatory authorities.

This Commonwealth has always been to the fore in disease control work. At the present time 13,275 herds are under the State-Federal cooperative plan for the elimination of this disease. The work is increasing most rapidly under the indemnification plan as instituted by the United States Bureau of Animal Industry. During the period January 1, 1934 to December 31 of the same year, 110,616 samples of blood were submitted to our laboratory for the agglutination test. This is comparable to the period between January 1, to December 31, 1935 when 220,690 samples were submitted for exami-

nation, showing approximately a 100 percent increase in this work during the one year period.

In the Commonwealth of Pennsylvania there are sixteen state Institutions that maintain dairy herds. These herds come under the supervision of the Pennsylvania Department of Welfare, but the control of transmissible diseases is supervised by the Pennsylvania Bureau of Animal Industry.

The above sixteen herds are tested for Bang's diseases under the Pennsylvania Plan with the result that some are certified and others are in the process of certification. From an initial infection figure of 27.6 percent in 1925, the percentage of infection has been reduced to date to four-tenths of one percent.

During the years that Bang's disease was prevalent in these herds there was an average milk production decrease from 10,500 pounds to 8800 pounds. The milk production of the negative herds compared with the positive herds, shows an increase of 12 percent. The calving efficiency of the positive group was approximately half of the negative.

With reference to infectious transmissible diseases such as, Anthrax, Blackleg, and Hemorrhagic Septicemia, we find that through the practice of preventive measures and accurate diagnoses, they have been materially reduced in prevalence. Only two cases of Anthrax were diagnosed in Pennsylvania during the year of 1934 and no cases on record in 1935; four cases of Blackleg in 1933, no cases in 1934, and one suspicious case was reported in 1935. Hemorrhagic Septicemia has also been reduced to a great extent by the disease control methods used.

The Pennsylvania Bureau of Animal Industry is always at the service of the dairy industry. Do not be hesitant in calling upon us to help solve disease control problems in your herds. Consult your veterinarian.



120

HEAD

120

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Douglassville, Pennsylvania

The Progress of the Federal Program for Eradication of Bang's Disease and Mastitis

DR. J. B. REIDY, *Inspector-in-Charge*, U. S. Bureau of
Animal Industry, Harrisburg, Pa.

During the past year a total of 3,167 cattle (1,204 Purebreds and 1,963 Grades) were condemned and slaughtered in Pennsylvania on account of being infected with chronic Mastitis. The Federal Government compensated the owners of these cattle to the extent of approximately \$110,000.00.

The Dairy Industry was thus purged of 3,167 possible sources of Mastitis infection and had it not been for the Government Program practically all of these infected animals would have been sold to unsuspecting dairymen who would not discover their bad purchase until the next freshening, or later, and the infection meanwhile might have invaded other members of their herd.

It was noted by the field inspectors on this project that a number of certified Bang's Disease-free herds had a severe Mastitis infection. One Purebred certified herd, for example, had twenty-one (21) cases of chronic Mastitis in it.

On post mortem examinations of the cases condemned eighty (80) percent of the animals slaughtered showed the milk-producing glands of the udder changed into fibrous tissue and not functioning as a milk-producing organ.

In the remaining twenty (20) percent of the cases, pus organisms had destroyed the milk-producing glands in a similar manner. It will thus be seen that the project of eliminating cattle affected with chronic Mastitis was a very constructive measure and did considerable good to the Dairy Industry and to the public at large.

The demand of the dairymen for this work was far greater than the funds allocated permitted.

During the fall of 1934 there was inaugurated in the state of Pennsylvania the Federal Plan of Co-operative Bang's Disease work with the aid of the state of Pennsylvania Bureau of Animal Industry. At the present time there are approximately 200,000 cattle under supervision in accordance with this Plan.

During the first few months of this work there were found

approximately fifteen (15) percent of the cattle tested to be infected with Bang's Disease. This large percentage of infection was due, in some respects, to testing known-infected herds as at that time there were approximately 3,000 cattle standing on farms which cattle were infected with Bang's Disease. This project has had, from its inception, the support of the leading cattle breeders in the state. The Medical profession has also heartily endorsed this project.

At the present time so many cattle breeders have had their herds Bang's Disease tested that there is very little demand for breeding cattle that are not free from Bang's Disease.

The benefits to be derived from having a Bang's Disease-free herd are numerous—saving of the calf crop; an increased demand for cattle free from Bang's Disease are two of the main benefits. The increased prevalence of Undulant Fever among humans has made health officials favor this project. Cattle owners themselves are also considering the importance of protecting their families and themselves from the possibility of becoming infected with Bang's bacillus which germ is reported to be the cause of many cases of Undulant Fever.

Much progress has been made in the reduction of Bang's Disease in sections of this state where the group or area plan of work has been conducted. For instance, in one particular section where the initial tests showed eleven (11) percent infection the six (6) months

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retest of the original infected herds showed only five (5) percent infection.

During the last three (3) months approximately sixteen thousand (16,000) cattle have received the initial Bang's Disease test on the area plan; and an average infection of only between three (3) and four (4) percent was found. So, it appears that Bang's Disease can be controlled, apparently, easier than other contagious diseases of cattle, provided the regulations prescribed by the Federal and State Bureaus regarding the handling of herds are lived up to.

The Application of Electricity on the Dairy Farm¹

by PROFESSOR R. U. BLASINGAME²
State College, Pa.

This paper is presented under two parts by reason of the fact that it deals with two distinct classes of investigation work pertaining to rural electrification. Part I is a brief resumé of the carefully controlled scientific research program conducted at the Pennsylvania Agricultural Experiment Station. Part II relates to data of an engineering nature secured by tests and observations on the operating characteristics of electric equipment on selected farms in widely separated sections of the state. Each program augments the other.

PART I

RESIDENT RESEARCH

The Pennsylvania Agricultural Experiment Station authorized the establishment of a rural electrification research program in the Agricultural Engineering Department early in 1928. One of the first studies attempted was the use of 3, 5 and 7½ h.p. electric motors for (1) filling silos, (2) sawing wood, (3) grinding feed. A progress report on these studies was issued in pamphlet form in 1929. The following resumé of that report will furnish the basic data developed in the study of 3, 5 and 7½ h.p. motors.

ELECTRIC MOTORS

Silo Filling

TABLE I. Rate of Cutting and Energy Consumption of 3, 5 and 7½ H.P. Motors Driving a 16 inch Ensilage Cutter.

	Motor Rating		
	3 h.p.	5 h.p.	7½ h.p.
Rate—tons per hour	5.35	6.0	7.5
Kw. hrs. per ton	0.94	0.87	0.81

- Suggestions:*
1. Use sharp knives on silage cutter. Change knives at least every day.
 2. Operate cutter from 350 to 450 r.p.m.
 3. Keep knives adjusted close to shear-plate.
 4. Fan blades should be ¼ inch or closer to fan housing.
 5. With a motor running at 1,750 r.p.m. use a 5-inch diameter pulley on the motor and a 24-inch diameter pulley on the cutter.
 6. Do not allow belt to rub on frame of machine.
 7. A 6-inch belt is satisfactory with pulley shafts about 15' apart.
 8. Arrange motor to transmit the power with the bottom side of the belt.
 9. Avoid twisted belt by reversing direction of motor rotation.

Feed Grinding. "A 5-h.p. electric motor was used for driving a 6-inch plate mill.

The rate of grinding oats was 491 pounds per hour with an energy consumption of 0.98 kw. hrs. per hundred pounds. The fineness of grinding was coarse. A 5½-inch pulley was used on the motor and a 10-inch pulley on the mill giving it a speed of 800 r.p.m. When grinding ear corn the rate of grinding was 940 pounds per hour with an energy consumption of 0.56 kw. hrs. per hundred pounds. The fineness of grinding was coarse.

"A 5-h.p. motor was used for grinding oats with an 8-inch plate mill equipped with a wind elevator. The mill had a 16-inch pulley and ran 612 r.p.m. The motor had a 5½-inch diameter pulley. The ground feed was elevated 8½ feet into a hopper equipped with a dust collector. In an 8-hour run, made without a stop, 5,168 pounds of oats were ground or 648 pounds per hour. The energy consumption was 0.77 kw. hrs. per hundred pounds. The fineness of the ground oats was coarse.

"A 7½ h.p. motor was used for driving a 10-inch plate mill with wind elevator. The ground grain was raised through a vertical distance of 8½ feet. Oats were ground at the rate of 815 pounds per

hour with an energy consumption of 0.87 kw. hrs. per hundred pounds and fineness of coarse. The mill was equipped with a 16-inch pulley and ran 605 r.p.m."

MILK REFRIGERATION

Following these electric motor studies the research program was devoted largely to the problem of milk cooling for the next two years. Thus in 1931 a comprehensive semi-technical bulletin No. 267 was published under the title "Farm Electric Milk Refrigeration." This bulletin contains two classes of data: (a) that developed on 7 actual farms, and (b) laboratory tests as a check on the farm records.

It was found that the electric energy required to cool milk varied from 5.48 gallons per kw. hr. to 16.37; the average being about 10 gallons. This record covers two years, 1929 and 1930, including summer and winter months.

Changing Water in Cabinet. It was found that when the water is changed in a milk cooler holding 226 gallons, it requires 26 hours and 13.63 kw. hrs. to cool that water from 56 degrees F. to 34 degrees F. Likewise, it took 19 hours to cool 185 gallons, from 57 degrees F. to 33.8 degrees F., and 9.8 kw. hrs. of electrical energy was consumed. Generally, a quantity of water is 100 to 120 gallons and requires from 6 to 8 hours and from 3 to 4 kw. hrs. to cool it to 34 degrees F.

Heat Leakage. Other additional loads incident to milk cooling are: (a) heat leakage into the vat or cabinet through the walls and doors or lids, (b) the refrigeration necessary to cool the 10 gallon cans themselves. Heat leakage amounts to 7% of the machine load in winter and 30% in summer. Cooling the cans equals 3% of the milk cooling load.³

Milk coolers give best efficiency when the vat is placed in a pit in the floor.

Milk cools more rapidly when the cooling water in the vat is stirred. It cools more rapidly in a wet type refrigerator when the ratio of water to milk is large; at least 5 to 1. It cools more rapidly and uniformly by direct emersion and when the water is stirred for 1¼ hours. Some ice on the coils is favorable to rapid and uniform cooling, but thick ice will prevent rapid absorption of heat from the milk. The expansion valve connected to the top coil will cool the water more uniformly.⁴

Several recent tests show that to cool 10 gallons of milk from 98.6 degrees to 50, 45, 40, or 33 degrees requires 1.25, 1.52, 1.82, and 2.5 kw. hrs. respectively.⁵

It is essential that an ample size compressor be used for the cooling load. Too small a cooler is false economy.

ELECTRICALLY HEATED DAIRY UTENSIL STERILIZERS

Before completing the manuscript for the bulletin on milk refrigeration, there was a brisk demand for information, electric dairy steril-

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izers. Research studies were consequently begun on this question in cooperation with the Department of Bacteriology in 1931. In October 1933 Bulletin No. 296 was published on that subject. This publication comprised two parts: (1) The comparative Heating Efficiency of Different Types of Electric Sterilizers, and (2) Their Bacteriological Efficiencies. The most of the data for this bulletin was developed on actual dairy farms. Some of the more important developments of these studies are:

1. Electrically heated dairy utensil sterilizers meet the requirements of the Pennsylvania Health Department.
2. These sterilizers are mechanically efficient.
3. The sterilized utensils remain in a hot container, protected from outside contamination until used at the next milking.
4. Electric sterilizers are ready for use when purchased.
5. They are simple to operate.
6. They reduce fire hazard to a minimum.
7. The average load for the humidified hot air sterilizer was 75 to 80 lbs. of pails, cans, strainers and aerator parts.

A year's record on a farm shows a total of 5,225 utensils sterilized; the total weight being 28,849.8 pounds; total kw. hrs. used was 1,361.8. This averaged 73.4 pounds of utensils per day and an average electric current consumption of 113.5 kw. hrs. per month.

PART II

FARM TESTS AND OBSERVATIONS

It is the opinion of many authorities that the rural electrification situation revolves around the ability of farmers to economically use sufficient current to justify the expense involved in furnishing them with electric service. If farmers were in position to use to their advantage an average of 100 kw. hrs. or more per month, a more complete rural electric service would be assured. With the hopes of discovering how many farmers are advantageously using this amount of electricity on their farms, a comprehensive study was inaugurated late in 1934 by the Department of Agricultural Engineering in cooperation with the Pennsylvania Joint Committee on Rural Electrification.

Representative farms were selected near Allentown, Bethlehem, Norristown, West Chester, York, and Waynesboro where sufficient electric current is being used in such a manner to render the service satisfactorily to both farmer and power company. It was also the plan to select farmers who have learned how to employ electric light, heat and power in the operation of their farms in such a manner as to yield a dividend.

In the selection of test farms no extra wiring or additional equipment was substituted for the facilities which already existed. In short, there were no subsidies in order to create conditions favorable

to the application of electricity on those farms. They were taken as they were found. Often the equipment being tested is five to seven years old. An individual watt-hour meter was attached to each piece of equipment under observation in order to determine its current consumption.

MILK COOLING

TABLE 2 gives the data relating to milk cooling. The average current consumption of 43 kw. hrs. per 100 lbs. of milk per month and 37.3 kw. hrs. per 10 gallon can is slightly high but still within range of efficient operation. Three of the dairymen listed—Messrs. Poorbaugh, Reed, and Rishel—bottle the milk they produce. Possibly the extra load imposed in cooling the bottles and crates may increase the refrigerating load. However, bottling usually implies some pre-cooling with well water which would tend to relieve the refrigerating load.

TABLE 2
Current Consumption of Milk Coolers

Farmers Name and Address	Pounds Milk Cooled per Month	Kw. Hrs. Per Month Average	Kw. Hrs. per 100 lbs. Milk per Mo.	Kw. Hrs. per 10 gal. can per Mo.
R. Brinton, West Chester, Route 2	24,007 lbs.	363.0	45.3	39.0
J. A. Poorbaugh, York, Route 3	27,033 lbs.	344.0	38.0	33.0
Clark Reed, West Chester, Route 2	5,676 lbs.	150.0	79.0	68.1
F. N. Miller, Waynesboro, Route 4	7,482 lbs.	129.0	52.0	44.5
H. C. Rishel, York, Route 5	13,910 lbs.	124.0	26.7	23.1
R. Thomas, Malvern, Route 1	19,014 lbs.	100.0	16.0	15.0
H. J. Layman, Waynesboro, Route 4	5,166 lbs.	77.3	44.5	38.7
D. K. Santee, Bethlehem, Route 2		46.0		
Average			43	37.3

DAIRY UTENSIL STERILIZERS

It will be noticed from TABLE 3 that the sterilization load for handling milk is much less than where bottles are sterilized in addition to utensils.

The Longacre operation sterilizes 300 quart bottles and 28 wire crates daily while only 125 quart bottles and no crates are handled by the Bergey sterilizer. Each crate weighs 10 pounds, making a total of 280 pounds in addition to the 300 bottles which weigh about 500 pounds.

These sterilizers are of the same type as tested and reported on Page 3 of this paper.

TABLE 3

Current Consumption of Dairy Utensil Sterilizers

Farmer's Name and Address	Kw. Hrs. Average Per Month	Method of Handling Milk
Isaac Longacre, Spring City, R. D. No. 2 F. Bergey,	250	Bottle
Telford, R. D. D. K. Santee,	55	Bottle
Bethlehem, R. D. No. 2 Ralph Thomas,	52	Bulk
Malvern, R. D. No. 1	20.6	Bulk

WATER PUMPING

TABLE 4 shows the current required to supply water for the people and livestock on four typical farms.

TABLE 4

Current Consumption of Water Pumping

Farmer's Name and Address	Persons in Family	No. of Livestock	Volts	H.P.	Deep or Shallow	Av. K.W.H. Per Month
Isaac Longacre, Spring City, R. D. 2	4	52	110	¼	Shallow	29.6
Clark Reed, West Chester, R. D. 4	4	22	220	½	Deep	25.0*
H. S. Layman, Waynesboro, R. D. 4	4	42	110	½	Deep	19.3
Harold Ziegler, Breinigsville, Pa.	5	33	220	1	Shallow	13.8

* Pre-cools milk with well water before bottling.

DAIRY WATER HEATERS

All of the data given in TABLE 5 relates to electric water heaters which are located in the dairy house and used for washing milk utensils. This data indicates that about 9 kw. hrs. per month are required to heat the water necessary to wash the utensils used per cow.

TABLE 5

Current Consumption of Dairy Water Heaters

Farmer's Name and Address	Average Kw. Hrs. Per Month	Cows
Ralph Thomas, Malverne, Pa., R. D. 1	259	34
D. K. Santee, Bethlehem, R. D. 2	146	
Harold Ziegler, Breinigsville, Pa.	115	12
F. Bergey, Telford, Pa., R. D.	114	12

The current consumption for milking machines runs quite consistent as is shown in TABLE 6. It apparently requires from 2 to 3 kw. hrs. per cow per month to operate a milking machine. This variation is undoubtedly due to power requirements of different types of equipment and management.

TABLE 6

Current Consumption of Milking Machines

Farmer's Name and Address	Average Kw. Hrs. Per Month	Cows
W. F. Rosenberger, Hatfield, R. D.	89.7	30
Robert Brinton, West Chester, R. D. 2	83	36
W. H. Stevenson, Midvale, Pa.	39	20

- (1) Departmental paper No. 2 presented at the annual meeting of the Pennsylvania Dairymen's Association, Harrisburg, Pa., January 23, 1936.
 (2) Head of the Agricultural Engineering Department, The Pennsylvania State College, State College, Pa.
 (3) J. E. Nicholas. "Electrical Refrigeration Requirements for Pennsylvania Farms." 44th Annual Report. The Pennsylvania Agricultural Experiment Station, State College, Pa.
 (4) J. E. Nicholas. "Farm Milk Cooling Plants and Their Performance." 48th Annual Report, Pennsylvania Agri'l Exp. Station, Page 11.
 (5) J. E. Nicholas. "The Energy Required in the Cooling of Milk." Agricultural Engineering, Vol. 16, No. 12, Page 474.
 Note: This discussion is based largely upon that part of paper No. 1 relating to dairy equipment.

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The Problem of Milk Cooling on the Farm

By PROF. JOHN E. NICHOLAS²

Department of Agricultural Engineering, State College, Pa.

There are several factors that the milk producer should consider in his problem of milk cooling. It is difficult to realize that the methods which have been practiced in the past and apparently were adequate then are inadequate now. Today there is an agreement that all milk intended for human consumption should be cooled immediately after it is produced to a lower temperature, preferably 45° F.

Cooling may be accomplished by placing the milk cans directly in the cooling water or by pouring the milk over the aerator. The aeration method requires extra handling and is desirable only when the milk is bottled, as in the case of the retail dairymen who require dry enough left over to reach from New York City to Hongkong. Or, if an to use the direct immersion method.

To cool milk by direct immersion, well water or even spring water is not cold enough, especially during the summer months when cooling is a much more important problem than in the winter. Ice or mechanical refrigeration, when properly applied will cool milk satisfactorily and economically.

Aside from cooling, there are two items in handling milk which are frequently forgotten, yet which are important when economy of operation is taken into consideration. The can in which the milk is cooled is an important item, because it constitutes 4.2 per cent of the cooling load. The next item is insulation. All milk cooling tanks or cabinets, whether home-made or commercial, should have not less than the equivalent of 3 inches of water-proof insulation. In a home-made wet storage tank, a 6 or 8 inch concrete wall, carefully constructed, is satisfactory as to strength and durability, but if there has been no insulation built into the wall, it will not prevent heat losses. The heat that leaks into a milk cooling tank also is an item of importance; when 3 inches of insulation are used, it is practically 7 per cent of the refrigeration load in the winter and as high as 30 per cent in the summer.

The size and shape of a tank should be carefully considered. A long, very narrow tank is least desirable. A square tank is the most economical from the operating standpoint; it has the least surface

²Associate Professor of Agricultural Engineering, Department of Agricultural Engineering, The Pennsylvania State College, State College, Penna.

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and therefore requires the least amount of material for an equal volume.

Figs. 1 and 2 show the temperature of the milk in the same 10-gallon can when milk is placed in 36° F. water. There are 5 gallons of cooling water for each gallon of milk cooled in both cases. The curves show how the milk cools from top to bottom as measured every 2 inches. Fig. 1 shows the results when the water was not stirred. Under this condition, at the end of two hours the bottom of the milk as shown by curve "B" is found to be 40° F., while the top of the milk at the same time, shown by curve "T" (Fig. 1) is only 56° F. This is a difference of 16 degrees. From Fig. 2 we find that by the agitation of the cooling water the bottom and top of the milk is 39° and 44.5° F. respectively at the end of the second hour of cooling giving a difference of only 5.5 degrees. At the end of 4½ hours, the difference between top and bottom is 3 degrees with agitation and 13 degrees without agitation of the water.

Milk should be cooled as quickly and uniformly as possible. The speed of cooling depends on the amount of water in the tank and its initial temperature. All other factors being equal the milk cools more uniformly if the cooling water is agitated. Fig. 2. If mechanical refrigeration is employed, the cooling water should be kept preferably at 34 degrees F. Under these conditions it will require 6 pounds of water for every pound of milk cooled. Some ice on the coils is an advantage since it will prevent the cooling water from rising too rapidly in temperature after the warm milk cans are placed in it.

When using a water-to-milk ratio of 6 to 1 and cooling two 10-gallon cans of milk at one time, the tank should have a total milk and water capacity of 140 gallons. Such a tank would be approximately 32 inches square on the inside. If four cans are placed in a tank of this size, the water to milk ratio is reduced from 6 to 2.5. A four-can cabinet is one which will handle 2 cans at a milking or 4 cans in 24 hours.

When ice is used as a source of refrigeration it is possible to use a smaller tank. In melting, every pound of ice absorbs 144 heat units at 32° F., the temperature at which it melts. In other words, a pound of ice used to cool milk is equivalent to 144 pounds of water rising one degree in temperature. If, after melting, it is allowed to rise to 40° F., it will absorb additional 8 heat units.

All tanks should have a metal lining. A light gauge metal is not desirable because it bends easily. In handling the cans in or out of the cabinet they are generally rested on the front edge. This should be heavily protected against wear.

The over-flow pipe is placed in one corner; a 1¼ inch pipe should be used. This permits rapid drainage of water and the tank can be more easily rinsed or hosed off when necessary.

How often should the water be changed? It all depends on the degree of cleanliness practiced by the dairyman. If a can had been

in the barn during milking, it may have accidentally picked up foreign matter; this may be carried into the cooling water unless the can is rinsed just before immersion. When ice is used, it will be necessary to change water more frequently, especially if the ice is placed directly into the water. In certain dry ice cabinets where the ice is in a separate compartment only the water comes in contact with the cans.

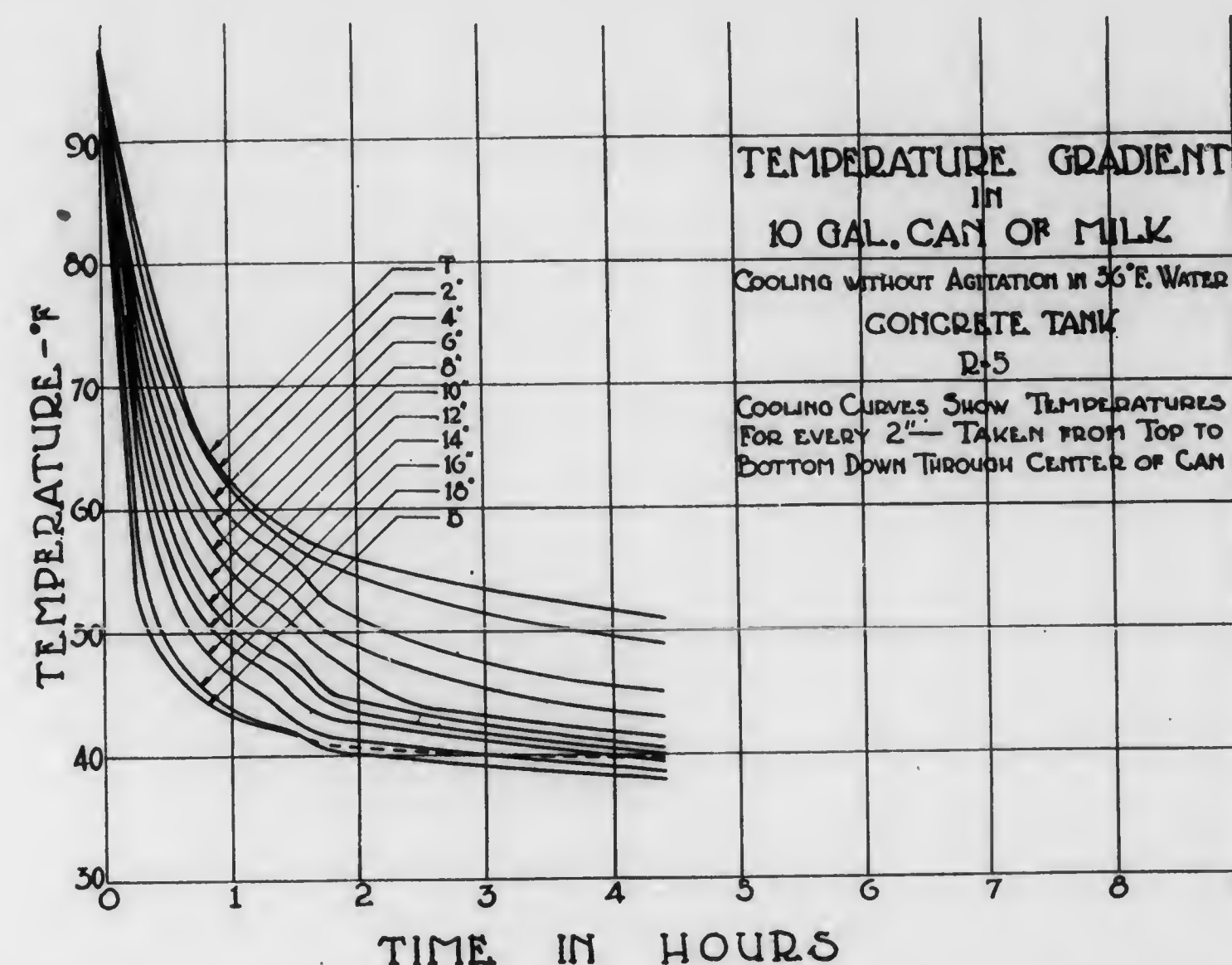


FIG. 1. SHOWING HOW MILK COOLS EVERY 2 INCHES FROM TOP TO BOTTOM IN THE SAME 10-GALLON CAN WHEN THE COOLING WATER IS NOT STIRRED

All cabinet covers should be of light construction. If a large tank is used the cover should be in two sections. One inch of insulation is enough for the cover. A well constructed cover will not need any weather stripping. Constant dampness on the cover will cause the weather stripping to wear. This is seldom replaced soon enough and becomes unsightly.

Mechanical refrigerating machines are either electrically operated, motor driven, or driven by a gas engine. When driven by an electric motor they are generally referred to as "electric milk coolers." The essential parts of a milk cooler are the cabinet, the compressor, the condenser, and the power unit. The commercial cabinet is metal lined; the home-made is generally of concrete. If mechanical refrigeration is used, the cabinet is equipped with cooling coils, more properly called evaporating coils. The refrigerant used may be ammonia, sulphur dioxide, methal chloride, or other gases. The cool-

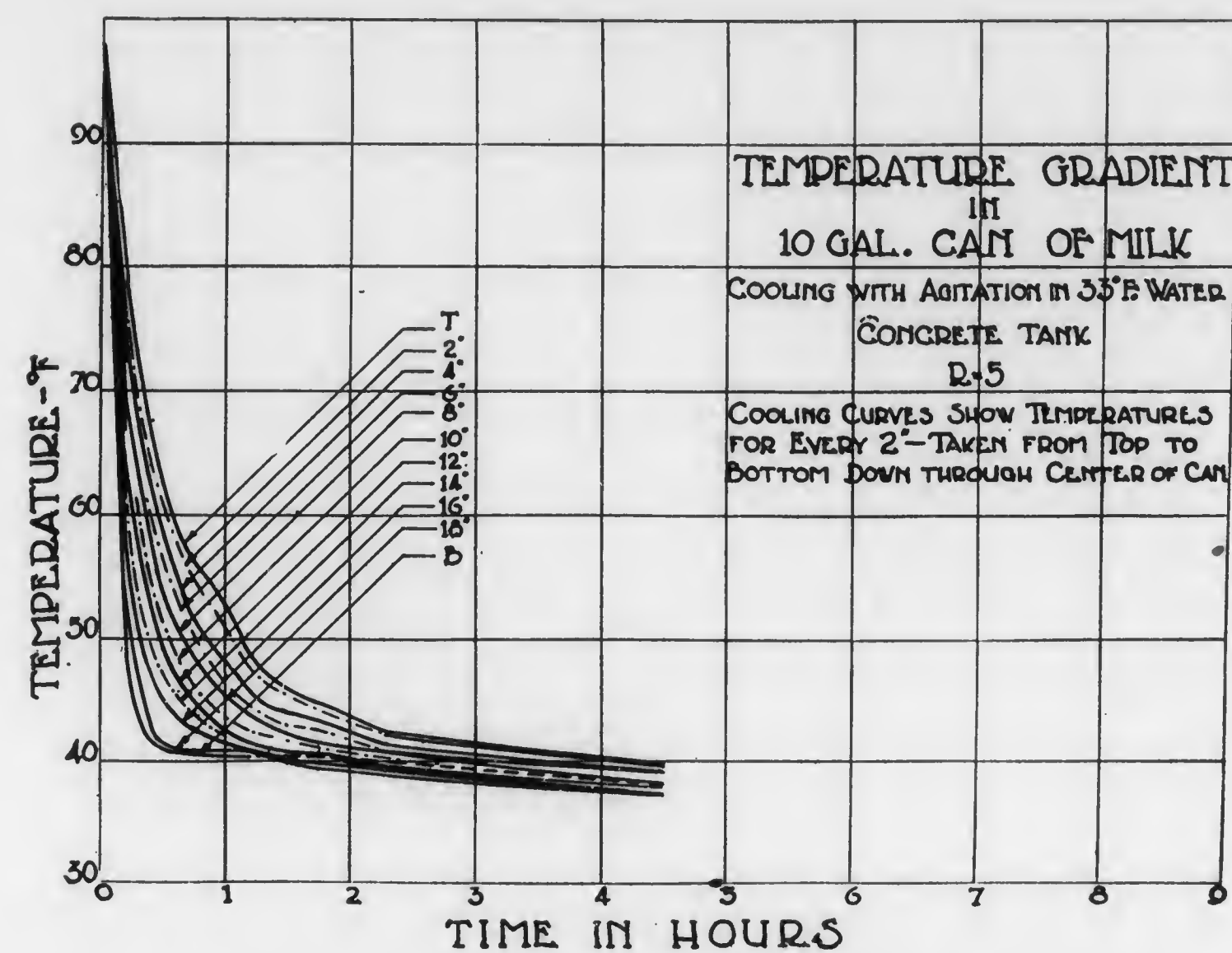


FIG. 2. SHOWING HOW MUCH MORE UNIFORMLY MILK COOLS IN THE SAME 10-GALLON CAN WHEN THE COOLING WATER IS NOT STIRRED. (COMPARE FIG. 1).

ing coil for sulphur dioxide and methyl chloride is made of $\frac{1}{2}$ -inch copper tubing, its length depends on the size of the cabinet. When ammonia is used the coils are made of iron pipes. All refrigerants commonly used in milk refrigerating plants operate at practically the same efficiency.

The condensing unit of the refrigerating machine is either air or water cooled. If running water is readily available a water cooled unit always is to be preferred.

The gas engine driven units are semi-automatic. They will stop, but the engine must be cranked to start. Electrically driven units are automatic in every respect. They require no attention other than the oiling of the motor, probably once a month.

Cooling the milk with ice requires from 40-50 pounds of ice per 10-gallon can of milk when it is cooled from 90° to 40° F. The electrical energy required to do the same amount of cooling is approximately 1.75 kw. hr. The actual cost of operation is determined primarily by the requirements of temperature to which milk must be cooled. (Table 1.) Thus, if milk is to be cooled to only 50° F. instead of 40° F., there is at once 1600 heat units less to handle which, in the case of ice, would mean about 30-35 pounds of ice per can instead of 40-50. With the electrically operated milk cooler, the operating cost would be reduced from 1.75-1.25 kw. hrs.

TABLE 1. ENERGY REQUIRED IN KW. HR. PER 10-GALLON CAN, WHEN THE MILK IS INITIALLY AT 98.6° F. (COW BODY) TEMPERATURE, AND THE MILK IS COOLED TO THE TEMPERATURES INDICATED.

Temperature to which milk is cooled, °F.	Kw.-hr. per 10-gallon can
50	1.25
45	1.55
40	1.80
35	2.25

SUMMARY

Well or spring water seldom is satisfactory for milk cooling because the water from either source is not cold enough. When ice is used it requires from 40 to 50 pounds per 10-gallon can. To assure rapid and uniform cooling the chunk size of 20 lb. ice is preferred when ice is placed in the water. Agitation of the water is essential with mechanical refrigerators. Fig. 2.

Gas engine driven units have to be started—they are semi-automatic. Electrically driven units are fully automatic. All types of tanks should contain not less than 3 inches of waterproofed insulation. Home-made tanks are satisfactory, if properly constructed.

❖ QUALITY FIRST ❖



This is our slogan and should apply equally as well to the production of milk. Victor Cabinets are quality built throughout. They last longer, are easier to clean and cost no more than ordinary cabinets.

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Pennsylvania Milk Control Board

COLONEL JAMES S. PATES, *Chairman of the Pennsylvania Milk Control Board, Harrisburg, Pa.*

The honor of your invitation to contribute to the Farm Show program of the Pennsylvania Dairymen's Association is highly appreciated.

I am always grateful for the opportunity to discuss milk problems with groups of Pennsylvania dairymen. There is nothing so mysterious about it that its operations should be kept secret. The actions of the courts in dealing with the milk question might require some elucidation.

The mystery to me is not that the Milk Control Board has so many legal obstacles thrown in its path, but that it has not had more.

When a business as huge as the fluid milk industry in Pennsylvania comes under public regulation, it is to be expected that the first few years of such regulation will be devoted mainly to establishing it upon a workable and constitutional basis.

Time is required for the herculean task of writing and rewriting general orders, devising systems of accounting, auditing, licensing and enforcing, and generally adjusting regulation in such a way that its aims are achieved without impeding the flow of trade.

However, in a democracy, these sincere and devoted efforts of the Board are not enough. In the end, it is no doubt well that this is so.

The Board is not set up to be an absolute dictator. Dealers and farmers alike have vested rights and customs, and these must be proven harmful or wasteful before they are changed. The courts, as well as the Board, are the protectors of these rights.

Although tempted daily to exasperation, the Board refuses to take up Hamlet's lament at "the law's delay." We of the Board accept our limitations as we accept our powers, in the spirit of democracy.

The duty of the Board is to enforce the law. If dealers can find something new on which to take us into court whenever the Board issues a new order or arrests a dealer for violating the law, they are welcome to take such action. The more of it they take, the sooner the courts will have decided the important questions, and the sooner our enforcement officials will have a basis for action.

It is natural that dealers who were on their way to monopolizing the market resented the idea of regulation, aside possibly from that part which fixed prices to the consumer. The Board expects opposition from such sources and sprinkles over their legal briefs and subtle propaganda a barrel of salt.

Such opposition does not perturb us any more than attacks from utilities disturbed the Public Service Commission in its early days. What is right for the industry is right, and will eventually prevail.

Opposition also comes from a less expected source, from officials of certain organizations claiming to represent producers. They would have the Board abolished, or at least have its price fixing powers extracted from the law.

It is more than a coincidence that the Milk Control Board and the Federal Trade Commission have evidence in their files that many of these officials are among, or associated with, those who were so closely allied with the large distributors, to the detriment of the market, that the very law they would now abolish was enacted as a measure to protect them from themselves. This fact does not reflect on the sincerity of their opinion; it merely helps us to weigh more accurately the value of that opinion.

Governor George H. Earle, whose social conscience has driven him to champion the cause of every man who has been deprived of his rightful opportunities, promised the dairy farmer a square deal—and he meant it. It is the determination of the members of the Milk Control Board to join with the Secretary of Agriculture and the Secre-



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tary of Health in transforming that promise into reality.

The law places on us of the Milk Board the duty of basing all prices upon "the amount necessary to yield a reasonable return to the producer and to the milk dealer," commensurate, I presume, with a fair price to the consumer. A considerable order, I assure you.

If our Board, by the magnificent sweep of a magic wand, could create a situation which would give the producer a higher price for his milk at the farm, the trucker more for his hauling, the dealer a greater return and the consumer a better grade of milk at a lower price, everybody would be satisfied—for about three days, maybe four.

Unfortunately, the Board has no such wand, not even among the souvenirs in its files from a former administration. You may be sure that if the Board had the magic baton, the first use made of it would be to create a scape-goat on which to load the blame now directed at the Board for all the trials and troubles and all the profits and losses of the industry. The president of a huge cooperative said in my presence the other evening that, in spite of his well-known opposition to milk control boards, he was secretly glad we have them for the reason that now there is someone besides himself to blame everything on.

Badly as we need a stroke of magic in our task of assuring a fair return to producers and dealers and a fair price to consumers, the Board can rely only on the laws of mathematics. Where returns are inadequate, prices must be raised or costs lowered.

Dealers testified before the Board that they are losing money and must have a larger margin of profit on which to work. They claim this can only be accomplished by lowering the farmer's price.

Before taking it out of the farmer or asking the consumer to bear a heavier burden, the Milk Control Board decided to take a peek behind the scenes in the dealers' business. We sent investigators into various cities to gather facts on street deliveries, perhaps the largest single item of expense in distributing milk. The results indicate an uneconomical practice.

In one city block of 45 families, we found 15 trucks, belonging to 11 different companies, delivering a total of 36 quarts of milk and 8 pints of cream to 39 families in the block, between the hours of 3:30 and 6:45 A. M. The trucks delivered an average of 2½ quarts of milk and ½ pint of cream.

In contrast with such wasteful overlapping of deliveries is the method of distributing milk through the stores which, according to the evidence, is more economical. Responsible members of the industry are urging the Board to meet the high costs of distributing milk to the door and the pleas of dealers for more spread by encouraging sales through stores, with the one cent cash-and-carry store differential now allowed only in Pittsburgh and Philadelphia.

Certainly, it is not for the Board to protect methods of distributing milk so obviously wasteful.

It is the privilege of the consumer to buy from whatever dealer fancy or reason may suggest. But it is also the duty of the State to make sure that every dealer furnishes a clean, healthful bottle of milk at a fair price.

If State regulations tend to level the difference in quality and price of milk furnished by the dozen milk wagons parading a single city block in the early morning hours, the consumer may be expected to care less which company is patronized than that three-fourths of the dozen wagons stay out of the street when the people want to sleep and that the remaining two or three serve them at lower delivery cost.

Not only are the members of the Board not magicians, and unable to perform wonders, but the courts have such enormous powers that the authority vested in the Board by the people of the State of Pennsylvania, through their legislative bodies, cannot be exercised until cumbersome legal formalities have delayed enforcement to the point where benefits of laws written for the protection of the people against predatory interests are dissipated. This is not a criticism of the courts; it is simply a statement of fact.

Under the act which set up the Milk Control Board and gave State officials the right to prosecute violators of orders issued for the purpose of stabilizing the milk industry, a milk dealer was cited for a hearing on September 13, 1934, to show why his license should not be

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revoked because of underpayment to producers of milk. This hearing was continued to September 20, 1934, then postponed until September 26, 1934, at which time the defendant admitted the violation and signed a stipulation to pay the amount owed to producers.

On complaints being made that payments were not being kept up, and that further violations were occurring, the Board cited the defendant to again appear before it on November 14, 1934. At this hearing the charges were again admitted.

After recitation of facts, in accord with the law, the defendant dealer's license was revoked, and he was ordered to cease business.

An appeal from this order was taken in the December, 1934, term of the Court of Common Pleas of Lancaster County. At this time a decision was rendered in the Board's favor, upholding the Order.

An appeal from the Lancaster County Court decision was taken to the Superior Court at its October term, 1935, where it was argued on November 14 and 15. A decision is not expected before the first of February, 1936, a lapse of one year and two months since an attempt was made by the Board to enforce the law. The case will probably be carried to the Supreme Court, which may require the best part of another year.

This case is typical of what may be done by those who are not pleased by any Order of the Board, and shows what often results from the Governor's efforts in behalf of the people.

The Board has no animus to hostility toward any individual or group. Governor Earle has ordered that fair treatment be accorded to all concerned. Not only has he done that, but he is giving personal attention, as he promised that he would, to the requirements of his people who look to his leadership for protective legislation. I don't see how any reasonable citizenry could require more definite, constructive labor from any executive than is being given by our Governor. And I don't see how any Governor could expect more assiduous attention to his requirements than is being given by his Milk Control Board.

This meeting is primarily for the benefit of Pennsylvania farmers. There are many here who are producers and haulers of milk. Every little while I hear of myself or some other member of our Board being quoted as having made statements which might be construed as for or against certain organized activities. There are attempts made to form organizations under an assumption of authority from the Board.

The Board believes in organization, but the only powers given it under the law are definitely set forth in Act 43. The Board may establish reasonable trade practices and systems of production control and marketing area enforcement committees in connection therewith, but it has neither the power nor the inclination to require organizations of either producers or dealers to set up a check-off to furnish funds for their operations.

No doubt members of many protective organizations are present. If so, I would say, "Get busy with them in an effort to increase membership." If there are those present who do not belong to any protective association, "They should join one." If there is none to join, "Form one." If you are not satisfied with the protective organization which is functioning in your community, join it with sufficient force that it may be better managed. No organization is either better or worse than its membership.

I cannot recall ever having known of as many as five men assembling for a discussion of any interesting subject that some good to someone did not come of it. People should learn to know each other. Even distributors and producers of milk might almost get together. At least they could wish each other less hard luck.

The Milk Control Board is serving the entire industry to the ultimate advantage, we believe, of farmers, dealers and consumers, and is trying to work through the established organizations of these groups, despite heckling from certain limber-lipped officials of such groups who have one or both eyes on political office.



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The Importance of Dairying In Pennsylvania

LLOYD BURLINGHAM, *Managing Director* of the
National Dairy Show, St. Louis, Mo.

Dairying in America is an extraordinary industry. Nothing comparable to the rapidity of its development, its magnitude, and its public-health importance can be found in the whole of human history.

Within the experience and observation of men now living there has been builded a business based on the product of the humble cow which now employs more American citizens and totals more new wealth annually than any other enterprise in this country. We have become the greatest dairy nation in the world. M. D. Munn, President of the National Dairy Council, gives a graphic illustration of the volume of the prodigious yields of milk in the United States. He doesn't ask us to try to comprehend the total production but considers only 14,000,000,000 pounds, the increase which came in a single decade. He says this ten year gain in milk if placed in ten gallon cans set side by side in a straight line would extend around the earth and have enough left over to reach from New York City to Hongkong. Or, if an airplane starts at one end of the line and travels 200 miles per hour the pilot can still look down at the tops of milk cans when he has flown continuously for seven days and seven nights!

Pennsylvania is no mean part of this mighty food production development. She rates as a leader, not only in the size of her dairy industry, but in the quality of the product and progressiveness of her owners of dairy cattle. Her 908,000 cows yielded a farm value in milk in 1934 of \$101,587,000. Ninth among the States in numbers of cows she is third in the cash value of their production. In only two States is the average milk yield per cow as great. Pennsylvania holds a leading position in using cow testing associations, bull associations, and breeder's organizations as bases for continuing the annual improvement in average yields. Of the herds containing 11 or more cows each 8.3% are in cow testing associations, a position comparing most favorably with the percentages in other States.

There are now 87 testing associations in operation within the State. The latest published data show 33,690 cows under test with an average annual yield of 8,126 pounds of milk, 322.6 pounds fat. Notable also is the fact that for five consecutive years the cows tested have yielded above 8,000 pounds of milk as an average, and the fact that for eight years the average fat production has been more than 300 pounds. It is evident that there is in Pennsylvania a broad general

understanding of what is necessary in profitable dairy farming and that marked progress has been made.

There are 52 cooperative bull associations in Pennsylvania. No more practical device has yet been outlined for dollar-making, community progress in breeding. A program of proving bulls in order that useful sires may be continued in service is underway in the State. The records were completed on 123 bulls last year through 3,425 dam-daughter comparisons. These and other projects under supervision from State College make available to dairy farmers in Pennsylvania a quality of extension leadership not excelled anywhere.

The need of the industry is not more milk cows in Pennsylvania—it is not even the production of increased quantities of milk. What should be most earnestly sought is fewer cows, but better ones—continuing to cull the inferior individuals and to give the kind of feed and care to the cows retained that their production may be greatly increased and their yields secured at the lowest possible cost of production.

Mr. C. R. Gearhart has emphasized data from the Department of Farm Management which shows that an increase of 1,000 pounds of milk per cow per year in a herd lowers the average cost of production 20 cents per 100 pounds. He indicates that the average yields in Pennsylvania cow testing associations is enough above that of the average cow in the State that the cost of milk production in associations is about 68 cents per 100 pounds less.

What the Commonwealth of Pennsylvania can most profitably do now is to take stock of its agricultural situation—set about a comprehensive plan for the conservation of its natural resources and encourage the adoption of methods and measures calculated to conserve the fertility of Pennsylvania soil and enable the present generation of operators to leave their lands to their successors in as high a state of fertility and plant food wealth as when these acres were received from the hands of a previous generation. That is the most pressing demand on present-day farming. If the problem is studied carefully and the true place of the milk cow in a permanent, stable agriculture known, there need be no concern for the maintenance of the dairy industry.

Dairying is essentially a conservative step-at-a-time undertaking. It has little of the spectacular in it, but a lot that is safe and sure. To one who will but follow a few clearly indicated directions it offers as certain promise of results as may be had. However, there is no royal road to goodly profits with cows—no short cuts.

There are hundreds of 4 H Club members in the State who know every essential in successful dairy husbandry. It is almost unnecessary to even list these few basic fundamentals:

1. The right kind of cows is the first. The man who starts with inferior stuff is in danger of never becoming a dairyman at all, either dropping out in discouragement or continuing year after year as a mere keeper of cows. Breed is much less important than quality

within the breed. The wise starter gives consideration to the choice of breed made by his neighbors and generally will profit from owning a herd of the same breed as is most numerous in the community. That is true because the majority usually finds the right breed for local conditions and also because it is advantageous in cow testing association work, in participation in bull associations, and in buying and selling breeding animals.

2. Cull pure-breds as well as grades—and realize that the herd average and the net profit are improved as much by getting rid of the low cow in the herd as in developing one at the top. No pure-bred rates a place in the herd or can claim stalls for her offspring except on the basis of yield. The proof of registration value is at the pail. Unfortunate though it may be, no herd has yet been developed to so high a level of quality that the Babcock tester can be discarded as a constant guard against inferiority. The only safe plan is to test every cow in the herd every year.

3. Start with healthy animals and keep them free from tuberculosis, Bang's disease, and mastitis. There can be no compromise on this score. Only healthy cows are profitable. Life is too short and the difficulties in dairying too great to waste time combatting disease in the herd. Spare no expense or attention in making certain in this matter. Be a crank on herd health.

4. Feed liberally and provide comfortable housing. Half of the herds in Pennsylvania are underfed and badly housed. The dairy cow is quite a fair economist herself. While she will rob her body to a considerable extent in order to maintain her milk flow, nevertheless she takes care of herself first. If she has only enough of feed nutrients to maintain her body there isn't anything left for her owner. Feed liberally of a milk-making ration. If the cow takes advantage of your liberality and does too well for herself, the Babcock tester points her out for you when the local butcher calls. Well-lighted, dry, warm, ventilated barns pay dividends at the pail.

5. Grow all the rough feed required in the ration and base the feeding schedule on farm grown legumes.

6. Make milk the measure of a cow's value. If registered cattle are owned let the sale of breeding stock be an extra dividend—always requiring that the herd pay its way at the pail.

7. Retain the good ones. Do not be over-tempted to sell the tops even at strong prices. So far we have no positive formula for replacing such animals profitably.

This month may well prove the most significant in the whole history of American agriculture. Press reports give promise that attention, 150 years delayed, is at last to be directed to the most important problem confronting the nation—one of increasing insistence—a real job that cannot safely be longer neglected. Whatever your views on the program of AAA and any substitutes which may be offered for its temporary, emergency measures there can be no debate on the wisdom of this undertaking or of the necessity for it—that is the long-

time program of saving and restoring the soil resources of America.

This is no new week-end scheme. Sound, informed men have labored on its fundamentals for decades. The recent dust storms from the western plains illustrated most dramatically what these practical conservationists have long sought to bring to the public consciousness. H. H. Bennett, in charge of the Department of Interior's \$10,000,000 Soil Erosion Service campaign, makes this indictment of our whole national land policy from the beginning:

"Already the nation has permitted the essential destruction of an area of 35,000,000 acres of formerly cultivated land exceeding the combined extent of Illinois, Massachusetts, and Connecticut, or an equivalent of two hundred and twenty thousand 160 acre farms.

"Accelerated washing of sloping fields has stripped off all or the greater part of the productive top-soil from 125,000,000 acres in cultivation.

"At least 3,000,000,000 tons of soil material are washed out of the fields and pastures of America every year. To load and haul away this incomprehensible bulk of farm soil would require a train of freight cars long enough to encircle the earth 37 times at the equator. More than 400,000,000 tons of solid matter are dumped into the Gulf of Mexico every year by the Mississippi alone along with many more millions of tons of dissolved substances. The greater part consists

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of super-soil—soil richer than that of the Nile—enough of it to build 1,250 farms of 160 acres each having depth twice that of the average upland.

"Unrestricted erosion is rapidly building a new public domain in America—an empire of impoverished and worn-out land, land stripped of its rich surface covering or gullied beyond the possibility of practical reclamation. The cost to the farmers and ranchers of the country amounts to not less than \$400,000,000 annually. This appalling wastage is not merely continuing, it is speeding up!

"The country may as well gird tightly its belt for continuing battle against this process of land wastage if we are to avoid the ominous eventuality of becoming the world's most outstanding nation of sub-soil farming, which means, of course, submarginal farming, with all its attendant evils of poverty, undernourishment, declining social and economic values, and a hopeless outlook on life."

What is to be done about the conservation and re-building of our land resources is now recognized as a problem of more than agricultural importance. It may yet prove to be the gravest difficulty facing the nation.

It is admitted that the policy of waste and extravagant soil spending of the past century must not only be stopped but that tremendous expenditures are required in necessary repairs and rehabilitation.

While no concerted national attack has been made on the policies and the natural forces which have continuously depleted our land resources it is extraordinarily fortunate that a very great amount of data and information on technique for a resultful campaign has been accumulating in research and experience on the part of a small army of intelligently interested and concerned men.

The Agricultural Adjustment Administration has had two distinct programs under way. One, the emergency undertaking which is conspicuously in the public mind. Whether this has been helpful to the country, whether some substitute may be found for it, whether it is sound, whether it is too costly, are matters worthy of the consideration they are receiving. The other activity, that of establishing a long-time policy of correct land use, is so basic and of so great possible good that its importance overshadows all phases of the temporary set-up. It dwarfs any other relationship of the Government to Agriculture. If the imposing staff of informed, conscientious men now engaged in this endeavor can develop a practicable program and startle the nation into accepting it and adhering to it from now on, errors in policy and administration of the temporary efforts lose significance.

Ours is a proud history. Where is there an American who does not believe the record of this country sets a new high mark in human progress, an example to all the world? What has been done here in a brief century and a half is in many respects unparalleled by any people. Yet the fact must now be faced that an audit of our soil

resources, the basic wealth, discloses this nation as the most prodigious and most profligate waster in the whole course of the human race. Something must be done. A wrong policy pursued for 150 years must be reversed. Resources criminally and immorally taken from future generations must be restored—*must* if this country is to endure in anything resembling the America we now know.

This National, long-time conservation undertaking relates itself directly to dairying in Pennsylvania. It is true that erosion, wrong cropping systems, and downright land abuse have not yet evidenced such devastating effects in Pennsylvania as are seen in the Southeast, for example, where millions of acres once productive are now useless. However, no man among us fails to recall individual Keystone farms which have been largely mined of their soil values or even localities seriously depleted in productive qualities. The solemn truth is that, even in Pennsylvania, lands are not what they once were. There sit in this room men who will hand on to their successors acres far less productive than when these men took stewardship.

Land must come to be regarded as a heritage—something to be passed on inviolate—improved, if possible. That is where dairy farming fits in, for in no other large scale system is it so easy to take care of the soil, to maintain and even better it. The manure carried back to the field, the legumes so necessary to profit-making rations, the tendency to permanent ownership, the emphasis on pasture lands—these are factors in a dairy farming plan by which the land can be conserved, made more profitable for present use and for future generations.

I propose immediate State-wide attention to a single phase of a broad-gauged, forward-looking land policy—improved pastures. We are making a poor job of our pasture lands—neither conserving the soil nor gaining profitable returns from grazing. Fully half of the cows in the State starve in July and August, if not before that sixty-day period and afterward. Cows come into winter quarters in thin flesh and not only slump in milk yield, but use expensive nutrients in rebuilding their bodies before gaining in milk flow. Not only are our pastures inadequate, but each cow now requires twice as many acres as will be true when pastures are handed rightly.

I suggest to the Pennsylvania Dairymen's Association recognition of its opportunity for leadership in land-saving in this State. Beginning with good pastures, I recommend your adopting a program of dairy farming in which the right use of the land is given as great importance as the production of record-making cows. I urge you to believe the time is here for the adoption of this program. I look forward to a day when the highest honor which may be conferred on a member will be the recognition symbolized in a brass tablet authorized by this Association, this tablet to be placed with proper ceremony on the front gate—the entrance to the farm—and to have imprinted on it these words—"Here lives a true patriot of Pennsylvania Agriculture. The acres of this farm are richer and more fertile because of his husbandry."

Economic Conditions and the Dairy Industry in Pennsylvania

DR. F. P. WEAVER

Department of Agricultural Economics
State College, Pa.

For principles involved in this discussion the reader is referred to the proceedings of previous years of this association. To avoid tiresome repetition it will be assumed that most of the folks present have heard discussions of the dairy cycle and of the characteristic movements in the general price level and in business conditions. This talk will therefore be more in the nature of bringing the data relating to prices, business conditions and the dairy situation up to date.

The cycle of dairy cattle prices which a year ago had shown some degree of rise from the low point of about 63 early in 1934, shows a phenomenal rise for the year 1935. By fall, when the data for the federal outlook report were assembled, the purchasing power of milk cows in the United States was 90 per cent of the 1910 to 1914 average. Milk Cow prices in Pennsylvania show a 12 point rise from that time to December 15, and if this is characteristic of the rise for the country as a whole the cycle should now stand at about 100 or about where it was on its way down at the close of 1931.

This is a most remarkable rise, occurring only six years after the cycle reached the peak of 147 at the close of 1929. Never in any previous cycle did prices rise so rapidly at a similar stage of the cycle, and unusual circumstances account for it at this time. The major factor is found on the chart showing slaughter of cows and heifers under federal inspection which rose abnormally due to the drought. The normal peak month for the year 1934 should have been about 450,000 head if the cycle were to move in orthodox fashion, but the peak near the close of that year was at the rate of about 550,000 per month and the total for that year was over three-quarters of a million above what the usual swing would call for. During 1935, however, the figures for slaughter so far available indicate an unusually low rate. Therefore this factor would lead one to believe that the rise in prices of dairy cows will be checked and that the present upward movement is not along the permanent slope that will lead directly to the peak of the next cycle but rather that it is an abnormally high "hill" rising in the "valley" between the two main peaks of the cycle.

NUMBER OF COWS AND HEIFERS KEPT ON FARMS FOR MILK PRODUCTION

Unfortunately for this meeting, the federal statistics along this line are published each year in February. Estimates published in the *Dairy Situation* indicate about a 2 per cent reduction in cow numbers during 1935, making a total of about 24,500,000 on January 1 as compared with 25,100,000 January 1, 1935. The February figures may require a revision of this estimate and the suspicion is that the revision will be upward. The Bureau of Agricultural Economics gave me a few preliminary and unofficial estimates. Heifers which freshened during the first half of 1935 or were expected to freshen in the latter half equaled 19.22 per cent of the number of milk cows on hand. During 1934, when cow numbers decreased almost a million, the per cent added was 18.72, but this was a year of almost a million more than normal slaughter. In 1933, 18.96 per cent were added and cow numbers increased 900,000. In 1932 the addition of 22.7 per cent resulted in a 750,000 increase in cow numbers and in 1931 the addition was 23.5 per cent and the increase was 810,000 cows. These were the years when the extremely low beef cattle prices were responsible for an abnormally low rate of slaughter. With prospects for relatively good prices for cows from the butcher, a more rapid addition of heifers would not result in a corresponding increase in cow numbers in the next few years.

Probably the best estimate of heifers that will be available for addition to herds is based on heifer calves under one year of age that are being saved. For the year preceding January 1, 1935 this number was estimated at 4,653,000 as compared with 5,287,000 the preceding year and 5,142,000 for January 1933. No one else has risked a guess at what it was for January 1936, but some studies in Centre County show that farmers there were saving 10 per cent more heifers than the year before. One would expect the upward trend in cow prices to cause a similar increase in all dairy sections, but the impressions shared in the office of the Crop Reporting Board are that in the general farming sections of the country there is at present more interest in other cattle, hogs and chickens than in milk cows. Prices of milk in Pennsylvania increased, from December 1934 to December 1935, from an index of 116 to one of 121. Hog prices rose from an index of 80 to 127, beef cattle from 76 to 115 and eggs from 85 to 92 in the same 12-month period. One can therefore see that there is a good foundation for such an impression. Taking all these factors into account it seems doubtful whether enough calves are now being saved to materially increase cow numbers in the next two years. If business improves and the demand for dairy products increases, one would not look for a very sudden break in the somewhat abnormally high dairy cow prices which obtain at this stage of the cycle.

With a reversal of the dairy products-feed price ratio since a year ago, so that feed is somewhat cheaper in proportion to dairy products than the prewar ratio, while a year ago it was higher, it seems rea-

sonable to expect that increased production of milk through better feeding of the same number of cows might just about keep pace with the increased demand for dairy products resulting from better consumer buying power. The dairy situation during 1936 seems to be rather closely tied up with business conditions, employment and pay-rolls. With a steady increase in demand, it should mean somewhat increased sales of dairy products at very near the present level of prices, allowing for seasonal influences, but with the cost of production per unit of product somewhat lower due to cheaper feed and greater production per cow and therefore moderately enhanced profits to the dairy farmer.

PRICES

The general price level is always of interest to the farmer because when it is rising the prices of farm products generally rise more rapidly and give the farmer a temporary advantage. During falling prices the opposite holds true, as most farmers know only too well. Thus from 1920 to 1921 while the wholesale price level declined from 252 per cent of prewar to 140 per cent, the price of food products at the farm declined from 240 to 118 but the retail price of food dropped only from 220 to 148. Similarly from 1929 to 1933, retail prices of food declined 44 per cent but the farm price of food 69 per cent. Since the low point in the Spring of 1933 the retail price of food has risen 38 per cent but the price which the farmer receives for food products rose over 100 per cent for the United States as a whole. In Pennsylvania the weighted average price of farm products rose from an index of 66 to one of 108, or about 64 per cent. The purchasing power of Pennsylvania farm products rose from 65 to 96, or about 50 per cent. The combined index of milk and butter stood at 70 in March 1933 and at 117 in December 1935. Dairy cows and veal calves rose from 75 in March 1933 to 122 last month.

However, it is not only because of improved exchange value in farm products over commodities that farmers buy that the farmer is interested in a higher general price level, but because less of his products are required to pay taxes, and interest and principal on debts.

In the last two and a half years the ratio of the value of crops to mortgage indebtedness on farms for the United States has changed so that less than one bushel is now required to pay the interest where over three bushels were required in 1933. In Pennsylvania this ratio has been improved only about 40 per cent; due to our closer proximity to markets the value of our products had not fallen so low in 1933 as in many farming areas.

Because of the vital relation of farming to prices it behooves us to try to appraise the present situation in regard to the factors which govern the general price level.

The low level of prices in the last five years has had the effect of very materially stimulating world gold production and much gold formerly hoarded or used for ornament was exchanged for money, so

INDICES OF PENNSYLVANIA FARM PRICES 1910-1914 = 100

	Average of twenty Pennsylvania farm products	Index of commodities bought by farmers for production	Index of commodities bought by farmers for living	Apples	Eggs	Grain	Milk	Dairy feed	Hay	Potato
1926-----	164	144	164	130	153	133	167	132	107	197
1927-----	160	144	161	209	137	128	180	138	94	170
1928-----	161	148	160	178	145	144	179	158	73	86
1929-----	167	147	158	223	153	133	182	148	72	215
1930-----	147	140	146	153	124	114	161	131	94	154
1931-----	108	122	126	96	96	78	124	101	93	70
1932-----	80	107	108	95	80	58	88	77	59	69
1933-----	86	108	109	130	78	76	93	89	58	141
1934-----	98	123	121	134	89	92	115	104	72	59
1935-----	107	127	124	115	110	95	120	107	73	81
December 1935-----	115	120	124	105	92	89	121	98	56	108
Increase from February 1933 to September 1934----	52%	26%	23%	82%	117%	79%	58%	58%	64%	28%

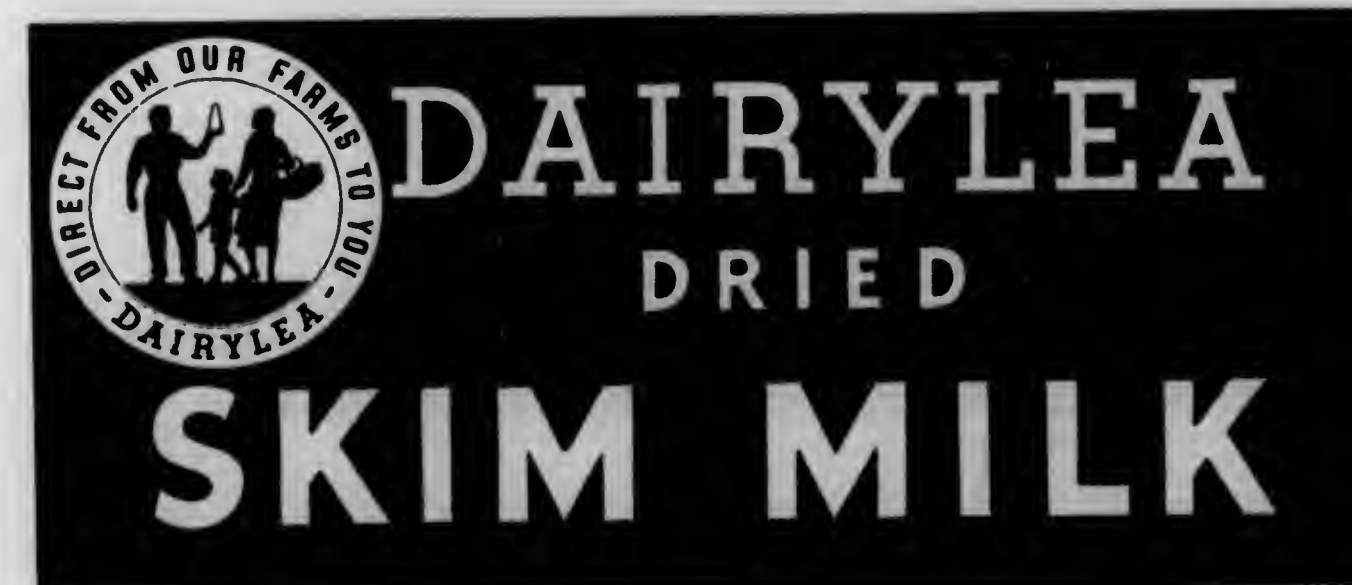
that the world stocks of monetary gold are now about 40 per cent greater in proportion to the production of goods than they were in 1929. The reduction of the gold in the dollar has made it possible for the same amount of gold to represent 69 per cent more dollars than in the twenties. It would therefore seem reasonable to assume that the threatened world shortage of monetary gold has been postponed for a number of years. Whereas this country supported a price level of about 140 to 150 from 1923 to 1928 with gold stocks of about four and one-half billions of dollars, there were, on January 8, gold stocks of \$10,148 millions. This count includes about two billions of profit which the government derived from the devaluation and against most of which no gold certificates have as yet been issued. The total gold reserves of the banking system are therefore about 8 billions of dollars, as compared with four and one-half billions in 1927. Assuming that this country would lose some gold if the other nations go back on the gold standard, there would still be ample reserves to support a price level probably 50 to 75 per cent higher than the present one if gold per dollar supported the same amount of paper money and of bank deposits as in 1927. At present the ratio of paper money in circulation to gold is extremely low and bank deposits are still lower in relation to gold. It would therefore seem safe to assume that as business recovery advances and as confidence in the extension and use of credit is restored, there will be ample monetary support for a very material advance in the general price level.

BUSINESS CONDITIONS AND EMPLOYMENT

Since the demand for dairy products, upon which is dependent the profits to dairy farmers for the next two yeears, seems to vary so directly with payrolls, and since further rises in the general price level appear to be predicated upon the demand for credit for business purposes, it is of extreme importance, in trying to appraise the conditions in the dairy industry from 1936, that we form some judgment of probable business activity during the year.

The Cleveland Trust Company chart on business activity for the past indicates that the rapid strides in recovery came at those times, like the first half of 1933, when the inflation psychology was most dominant. It also indicates that recovery was checked when the N. R. A. had its most widespread influence on business and that recovery stimulated by such "artificial" increases in consumer buying power as resulted from unemployment relief, public and civil works programs, Works Progress Administration activities and the A. A. A., which increased the buying power of certain rural sections, was quite different in its character from the kind of recovery which was common in past depression periods. An average of the sequences in the last 13 depressions before the present one shows that, left alone, business recovers when prices of raw materials, wages, rents and interest charges have sunk so low that goods can be produced profitably at the low prices then prevailing. That kind of a recovery is cumulative in its effects. It causes a rise in prices which stimulates still further

activity. The profits possible, due to the lag in wages, rents, interest rates and other overhead costs as well as low costs of distribution, lead to expansion of plants and stimulate a building program. The wages paid out in the building activity promote still more active consumer buying of non-durable goods, raising still higher the potential profits of industry and trade, and thus developing what in the course of time results in boom conditions. Ultimately this also creates the condition which makes another depression inevitable. In the kind of recovery which was experienced in the last two and one-half years many of these factors have been conspicuous for their absence. The N. R. A. in my judgment tended to raise costs of distribution at a time when cut-throat competition in former depressions lowered them. The A. A. A. tended to raise the costs of raw materials but the immense amount of consumer purchasing power distributed in the attempt to "prime the pump" and to relieve suffering, provided sufficient demand for consumer goods to raise the level of activity considerably above what would likely have been the case had the "old style" deflationary processes been allowed to have free play as was the custom during depressions 20 to 50 years ago. It has, however, failed to create the potential conditions for increasing profits and has not resulted in a construction program without which boom conditions are not likely to be created. We may therefore summarize recovery to date as having resulted in definitely better business conditions than



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could have prevailed without some of the "New Deal" measures. At the same time it may lead to slower recovery and therefore an actual prolonging of the time that business will be below the "normal" level. By the same token it may be much longer, as a result of some of these measures, before the boom conditions will be created which would make another recession inevitable.

The general concensus of forecasts seems to be that business will improve slowly during 1936 and probably average 10 or 12 per cent higher than during 1935. This would mean that industrial production, now between 85 and 90 per cent of normal, would go to from 95 to 100 per cent. The Kiplinger Service from Washington predicts that automobile production will be 20 per cent better than in 1935 and that residential construction will be double that of last year, but even at that only about 40 per cent of normal. They also indicate that roughly about one-fourth of the present unemployed can find work with business by the end of 1936.

Mr. Ayers in the business bulletin of the Cleveland Trust Company expresses essentially these same hopes. He is, however, fearful of our ability to make the transition from the present program of "public spending to create purchasing power" to a pay as you go basis. This he considers fundamental before private enterprise will launch a building program adequate to put the durable goods industries back to normal and to reabsorb the majority of the remaining unemployed.

I think I might close with the conclusion that moderate increase in payrolls is in sight, that it will bring with it additional demand for dairy products, that these demands during the next year will probably be met by increased production and greater profits from the present numbers of cows, and that this will stimulate saving of heifer calves and thus create the condition that will halt the present rapid advance in dairy cattle prices to build some more of the minor fluctuations through which the dairy cattle prices generally pass between the rapid descent from one peak of the cycle to the rapid and relatively sustained rise which heads to the next peak 15 or 16 years later.



ANNUAL BUSINESS MEETING

The annual business meeting was held January 23, 1936 in Room F, State Show Building, President Warren Whittier presided.

The minutes of the preceding meeting were read and approved.

The Treasurer's report, showing a balance of \$492.09, was read and accepted.

RECEIPTS:

Balance carried forward	
January 15, 1935	\$368.15
Banquet, January 24, 1935	243.00
Advertisements in 1935 annual report	202.64
Membership during 1935 (paid)	418.00
One annual report	.50
	<u>\$1232.29</u>

EXPENDITURES:

BANQUET:		
Entertainment	\$ 34.50	
252 plates	203.64	
300 tickets	2.75	
Picture	.75	
Mimeographing merit awards	3.06	244.70
ANNUAL REPORT:		
Printing 600 reports	209.50	
Two cuts	7.60	
1000 plain Columbia clasp envelopes	12.00	
532 3-cent stamps and 1-cent stamps	15.97	
Stenographic help	5.00	250.07
SPEAKER AT ANNUAL BANQUET:		
D. R. Dodd, for expenses	42.42	42.42
STATIONERY:		
1500 Letterheads	6.25	
1000 3-cent envelopes	34.93	
500 1-cent postal cards	5.00	
1500 Registration cards	7.43	
1500 Business reply envelopes	8.50	62.11
Stenographic help	5.05	5.05
Five long distance telephone calls	2.45	2.45
1600 Merit ribbons	104.90	104.90
1000 Pins for three years	13.50	13.50
Northeastern Dairy Conference		
dues for 1935 and 1936	10.00	10.00
State Council of Agricultural Ass'ns.	5.00	5.00
		<u>740.20</u>
Balance on hand January 10, 1936		\$ 492.09

The Treasurer's accounts were audited by Jacob N. Smith and R. H. Olmstead. The auditing committee reported the account was correct and complete in all details. The report of the auditing committee was accepted and the committee dismissed with thanks.

There was a motion made and passed that pursuant to the recommendation of the Executive Committee two members shall be added to the Executive Committee, one to represent the D. C. S. A. of Pittsburgh and one to represent the Dairymen's League.

The following men were elected as an Executive Committee for the ensuing year:

President.....Warren F. Whittier, Douglasville, Pa.
Vice President.....K. S. Gagshaw, R 2, Hollidaysburg, Pa.
Secretary-Treasurer.....G. A. Burdick, Wrightsville, Pa.
Asst. Secretary.....F. M. Twining, 401 N. Broad St.,

Philadelphia, Pa.

Wm. A. E. Leitzinger, Clearfield, Pa.

Wilbur F. Barkdoll, Mont Alto, Pa.

H. A. Snyder, Montoursville, Pa.

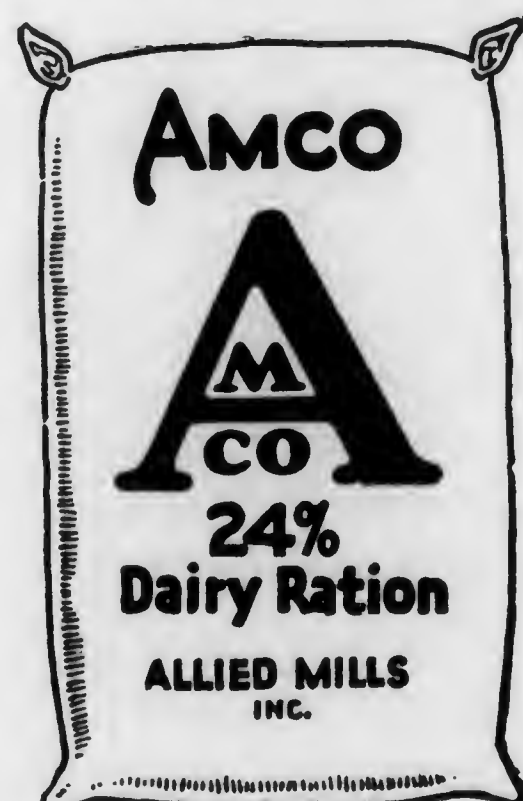
H. H. Marsh, Waterford, Pa.

Robert D. Marshall, Beyer, Pa.

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RESOLUTIONS

BANG'S DISEASE

The following resolutions were adopted on the recommendations of the Resolutions Committee, A. C. Craig, Cuthbert Nairn, Sam Williams, K. S. Bagshaw, C. G. Dietrich, E. B. Fitts:

WHEREAS: Bang's Disease in cattle is proving to be a greater menace to the dairy industry and causing a greater financial loss to dairy owners than did Bovine Tuberculosis, and

WHEREAS: The Federal Bureau of Animal Industry in co-operation with the Pennsylvania Bureau of Animal Industry have conducted extensive tests for Bang's Disease in this territory, as a result of which 90% or more of the herds have been tested in a number of townships, or their owners have made application for such tests, and

WHEREAS: There is apparent a general demand for an area plan for Bang's Disease testing and control similar to that in effect for Bovine Tuberculosis;

THEREFORE, BE IT RESOLVED by The Pennsylvania Dairyman's Association duly convened in Annual Session on this 23rd day of January, 1936.

1. That Bang's Disease testing throughout Pennsylvania should be placed on a basis, both State and Federal, similar to that now followed in testing, control, and elimination of Bovine Tuberculosis.

2. That the Pennsylvania Department of Agriculture be asked to prepare and to present to the next session of the Pennsylvania Legislature an act or acts to provide for putting this plan into operation.

3. That until a State-Federal plan may be arranged, the Federal Government be petitioned to continue its present plan of testing and payment of indemnities on a basis that will insure the elimination of the disease from herds and areas, and that will provide for the re-testing necessary to continue such herds and areas on a clean basis.

4. That the Pennsylvania Department of Agriculture, through its Bureau of Animal Industry, be petitioned to provide, at the earliest possible moment, a quarantine for all areas where 90% or more of the herds have been tested for Bang's Disease.

BANG'S DISEASE APPROPRIATION

WHEREAS: Congress has authorized the sum of forty million dollars for the eradication of the Bang's Disease,

WHEREAS: There remains unallotted thirty million dollars, and

WHEREAS: It is essential that this project may be continued and accelerated,

THEREFORE, BE IT RESOLVED that the Pennsylvania Dairyman's Association urges the allocation of the said thirty million dollars.

OLEOMARGARINE

WHEREAS: The dairy industry in Pennsylvania is the major source of agricultural income amounting to millions of dollars each year, and

WHEREAS: The ability of dairymen to support their township, county and state units of government by taxation depends on their income from the sale of dairy products, and

WHEREAS: Prices on all dairy products including fluid milk and cream are based on and influenced by the price of butter, and

WHEREAS: The competition of oleomargarine has during the past year seriously reduced butter sales and depressed butter prices by the substitution of 150,000,000 additional pounds of oleomargarine for a like amount of butter during a single year, and

WHEREAS: Oleomargarine is composed chiefly of foreign ingredients and almost entirely of fats and oils not produced in Pennsylvania,

THEREFORE, BE IT RESOLVED, that the Pennsylvania Dairymen's Association recommend to the Pennsylvania Legislature that, in addition to our present laws requiring the licensing of handlers of oleomargarine, new legislation be enacted which will tax oleomargarine sold within the state at a rate equal to the amount of taxes now collected from each pound of butterfat produced in Pennsylvania in order that products competing for the markets of Pennsylvania dairymen may bear a tax burden equal to the tax burden borne by Pennsylvania dairymen.

FARM PRODUCTS SHOW

WHEREAS: That part of the Farm Products Show plant devoted to dairy cattle is entirely inadequate, and

WHEREAS: This situation is retarding the normal development of the dairy show,

THEREFORE, BE IT RESOLVED, that the Pennsylvania Dairymen's Association recommend and urge that the plant of the Farm Products Show be enlarged by the addition of a show arena of adequate size and also a new barn for dairy cattle.

BASE DATES FOR DAIRY CATTLE CLASSES

WHEREAS: The showing base date for the 1936 shows will be changed from August 1st and February 1st to July 1st and January 1st, and

WHEREAS: If these base dates are followed by the Farm Products Show, the cattle will be older by one month, and

WHEREAS: The cattle, especially the younger classes, now appear not to be placed in the proper classification, and

THEREFORE, BE IT RESOLVED, that the Pennsylvania Dairymen's Association favors that the base dates for the Farm Products Show be changed to January 1st and July 1st.

There being no further business, the educational program continued.

C. R. GEARHART, *Secy.-Treas.*

NOTE: Copies of the resolutions were sent to the proper authorities with the request that they support the resolution.

ELEVENTH ANNUAL BANQUET

Pennsylvania Dairymen's Association

Fifth Street Methodist Church
HARRISBURG, PA.

Thursday, January 23, 1936

HARRY SNAVELY, *Toastmaster*

ADDRESSES BY

LLOYD BURLINGHAM

Manager, National Dairy Show

St. Louis, Mo.

HERD TEST AWARDS

MILK AWARDS

ENTERTAINMENT

Fifth St. Methodist Church Orchestra
and Jimmie Loughran

MERIT AWARDS

Presented at the Banquet

Sycamore Farms awarded:

\$100.00 in cash to National Farm School, Doylestown, Pa.
Best Ayrshire cow in milk exhibited at the 1936 Farm Products Show, bred and owned by exhibitor.
Donated by Mrs. E. R. Fritsche of Sycamore Farms.

National Ayrshire Breeders Association awarded:

A trophy to Sycamore Farms, Douglasville, Pa.
High herd in herd test—lbs. milk 10,499; lbs. fat 445.9.
A trophy to Penshurst Farm, Narberth, Pa.
High D. H. I. A. herd—lbs. milk 9,861; lbs. fat 396.6.
A trophy to Glen Foerd Farms, Torresdale, Pa.
Second high herd in herd test—lbs. milk 10,314; lbs. fat 388.4.

Pennsylvania Brown Swiss Breeders Association awarded:

A set of three tuned Swiss bells to Oscar Brouse, Mifflinburg, Pa.
High D. H. I. A. herd—lbs. milk 10,179; lbs. fat 422.2.

Pennsylvania Federation of Holstein Clubs awarded:

A plaque to Albert C. Craigh, Sewickley, Pa.
High H. I. R. herd—lbs. milk 12,661; lbs. fat 465.6.
A plaque to Western Penitentiary, Bellefonte, Pa.
High D. H. I. A. herd—lbs. milk 17,023; lbs. fat 567.3.

Pennsylvania Guernsey Breeders Association awarded:

A loving cup to A. J. Bullers, Brookville, Pa.
High D. H. I. A. herd—lbs. milk 8,813; lbs. fat 505.9.

Pennsylvania Jersey Cattle Club awarded:

A model cow to Angus Wilson, Punxsutawney, Pa.
High D. H. I. A. herd—lbs. milk 8,859; lbs. fat 537.6.
A model cow to L. B. Carter, Titusville, Pa.
High R. of M. cow, Blond Lad's Bowlina 957841.
She started her record at 2 yr. 5 mo. In 305 days she produced 8,556 lbs. milk and 586.41 lbs. fat.
A model cow to Harry I. Sharp, Diamond, Pa.
High herd test herd, ave. no. cows 5.39, ave. lbs. fat 443.21.

SPECIAL PRIZE AWARDS

1. A special prize was awarded by the Dairymen's League to Mr. C. A. Chamberlain, Mansfield, Tioga County, Pennsylvania, whose milk scored the highest of any Dairymen's League member. The milk scored 94.9.

2. The Interstate Milk Producers' Association awarded a prize to go to the highest scoring milk exhibited by an Interstate member. Mr. J. W. Fritz, Waynesboro, Franklin County, Pennsylvania, has received the award. The sample submitted in the contest scored 97. It was also the highest score in the milk show.

3. The Pennsylvania Guernsey Cattle Club awarded two prizes, one to Mr. Charles E. Martin, Waynesboro, Franklin County, Pennsylvania, who produced the highest scoring sample, 96.9 score, from a registered Guernsey herd and one to Mr. J. W. Fritz, Waynesboro, Franklin County, Pennsylvania, 97 score, from a grade Guernsey herd.

4. A special prize was awarded to Mr. A. E. Wood, Franklin County, Pennsylvania, by the Pittsburgh District Dairy Council. Mr. Wood's sample as submitted scored 96.85. That score was the highest submitted by a member of the Dairymen's Cooperative Sales Association.

5. A special prize was awarded by the Pennsylvania Jersey Cattle Club to Mr. J. C. McCandless, Butler, Butler County, Pennsylvania. This milk scored 96.3 and was produced from a registered Jersey herd.



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The product of this quality breed each year at the Pennsylvania Farm Products Show wins the majority of prizes offered. In 1936, six of the nine gold medals, and 53% of all awards were won by Guernsey Milk.

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Dairy Herd Improvement Association Herd Honor Roll, 1935

Compiled by I. O. SIDELMANN

Each Dairy Herd Improvement Association member whose herd average production was 300 pounds or more of butterfat during 1935 was placed on the honor roll and given a prize ribbon by the Pennsylvania Dairymen's Association. One thousand twenty herds qualified for this honor. The awards were divided into three groups according to amount of production; 492 red ribbons were awarded for herd averages between 300 and 350 pounds of butterfat; 356 blue ribbons for averages between 350 and 400 pounds of butterfat; and 172 purple ribbons for averages above 400 pounds of butterfat. Following is a list of these members arranged according to association membership and production average:

ADAMS COUNTY—(Adams Association)

Lee A. McCauslin, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Mrs. Annie Markle	New Oxford, Pa.	9.84	R:GrH	10,930	373.3
H. E. Brown	Fairfield, Pa.	14.85	RH	9,642	338.4
George E. Motter	Littlestown, Pa.	17.10	R:GrH	9,007	315.4
N. J. Vines	Biglerville, Pa.	14.50	GrJ	5,901	313.8
John C. Bream	Gettysburg, Pa.	13.75	RH	8,721	307.4
Edgar Weaner	Gettysburg, Pa.	29.94	RH	9,106	307.3
Mrs. Rose Murren	Hanover, Pa.	11.41	GrG	6,733	301.6

ALLEGHENY COUNTY—(Allegheny Association)

Robert W. Ryerson, Tester

*Fairacres Farm	Sewickley, Pa.	10.87	RG	9,198	446.4
Dundee Farm	Sewickley, Pa.	5.93	RG	8,473	419.2
Allegheny Co. Workhouse	Blawnox, Pa.	48.64	GrJ	7,448	411.9
Allegheny Co. Home	Woodville, Pa.	88.38	RH	11,807	405.0
J. D. Bamford	Midway, Pa.	24.09	RJ	7,436	404.0
J. F. Byers	Sewickley, Pa.	6.00	RG	7,888	372.6
Franklin Farm	Sewickley, Pa.	9.00	RG:RA	8,595	370.9
R. M. Donaldson	Midway, Pa.	23.26	RA	9,195	365.8
Blackburn Farm	Sewickley, Pa.	8.30	RA	8,702	339.9

* Part of herd milked three times daily.

ALLEGHENY COUNTY—(Elizabeth Association)

James Hartzfeld, Tester

E. B. Douglass	Elizabeth, Pa.	8.60	RG:RH	11,056	445.2
Henry Hofmeister	Monongahela, Pa.	15.10	RH:R		
			GrG	10,460	400.3
A.F. Peairs & W.B. Scott	Elizabeth, Pa.	23.89	R:GrH	10,739	375.7
J. D. Guffey	Elizabeth, Pa.	19.47	RH	10,574	373.9
C. E. Mowry	Willock, Pa.	15.42	GrH:GrG	9,262	358.9
F. L. McKinney	Elizabeth, Pa.	15.93	RH:RG	8,531	354.0
Evergreen Farm	Monongahela, Pa.	17.39	Mixed	6,815	311.9

ARMSTRONG COUNTY—(Armstrong No. 1 Association)

Ralph W. Steele, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
*Harry Koenig	Tarentum, R 1	14.08	RH	13,728	457.3
H. S. Hogg	Worthington, R 2	16.41	GrG:GrH	8,785	355.7
R. D. Marshall	Beyer, Pa.	28.75	R:GrH	10,319	350.0
Thomas M. Hughes	Natrona Heights	26.53	P:GrH	9,610	335.1
J. M. Reed	Kittanning, R 3	35.11	R:GrG	7,540	321.7
James N. Wray & Son	Mosgrove, Pa.	49.46	R:GrH	8,478	311.2
H. C. Lewis	Kaylor, Pa.	38.65	P:GrH:		
* Part of herd milked three times daily.				GrG	8,749 300.0

BEDFORD COUNTY—(Bedford Association No. 1)

Fred Naugle, Tester

Dr. E. J. Miller,					
Est. Farm 1	Everett	7.89	RJ	8,210	452.3
Paul W. Koontz	Bedford, R.D. 2	13.07	R:GrJ	7,390	440.2
John S. Hershberger	Everett, Pa.	9.49	R:GrJ	8,039	435.9
Dr. E. J. Miller,					
Est. Farm 2	Everett, Pa.	8.06	RJ	7,716	425.5
J. G. Bowman	Schellsburg, Pa.	17.84	R:GrJ	7,660	413.4
Mrs. Francis Baker	Everett	16.89	R:GrJ	7,719	411.3
S. L. Cessna	Bedford, R.D. 4	15.22	R:GrJ:		
			RH	10,643	408.3
Carl Garland	Buffalo Mills	16.33	RH:GrJ	9,542	392.0
C. E. Llewellyn	Midland, Md.	20.84	R:GrH	10,532	391.3
Benjamin Hall	Hopewell, R.D. 1	11.72	GrG	8,115	387.4
S. H. Markey	Loysburg	9.27	RG	8,270	378.4
McKinley Woy	Everett, R.D. 4	8.11	RG	7,881	377.2
Thos. H. Donaldson	Yellow Creek	16.01	R:GrJ	7,504	369.3
Arthur E. Woy	Everett, R.D. 4	8.82	P:GrG	8,251	367.2
Stanley A. Koontz	Bedford, R.D. 4	30.83	RJ	7,026	366.4
W. E. Barrett	Woodbury, R.D.	10.32	Mix	7,512	365.7
Allen Eshelman	Everett, R.D. 3	13.69	RJ	7,197	357.2
Ralph Rhodes	Saxton, R.D. 1	22.24	R:GrJ	6,495	322.2
Walter F. Schell	Schellsburg	10.10	P:GrJ	6,231	320.3
J. Edw. Miller & Sons	Midland, Md.	19.28	R:GrH:J	8,009	308.5
Edw. W. Calhoun	Everett, R.D. 3	8.26	R:GrJ	6,114	305.8
M. R. Llewellyn	Midland, Md.	25.07	GrH	8,076	300.3

BEDFORD COUNTY—(Bedford Association No. 2)

Galen Furry, William Pressel, Testers

Lloyd King	New Enterprise	17.84	GrH:G	8,717	392.2
Ross T. Snider	New Enterprise	14.97	GrG:Mix	8,150	375.5
Ransom Furry	Bakers Summit	13.01	Gr.G:J	7,957	373.7
Jacob Stuckey	Loysburg	24.49	Gr.H:Mix	8,786	372.0
D. L. Baker	New Enterprise	13.85	GrH:Mix	8,553	368.8
A. F. Henry	New Enterprise	11.37	Mix	8,062	368.0
Clarence H. Detwiler	Woodbury	11.36	GrG:Mix	7,867	358.9
Luther Amick	New Enterprise	20.92	GrG:GrH	8,349	356.5
Harry R. Snoberger	New Enterprise	11.14	GrJ:Mix	8,380	352.3
Lawrence Replogle	New Enterprise	10.04	GrG:Mix	7,763	348.2
Howard Stiffler	New Enterprise	17.32	GrG:Mix	6,924	340.4
Samuel Baker	Waterside	11.22	GrG:Mix	7,821	333.2
Ira Eshelman	New Enterprise	11.48	GrG:GrJ	6,428	323.9
Cyrus Furry	New Enterprise	11.31	GrG:Mix	7,854	323.4
Elmer W. Miller	Woodbury	7.31	GrH:Mix	7,658	320.5
D. M. Bayer	Loysburg	25.16	GrG:Mix	7,254	320.0
Paul I. Detwiler	New Enterprise	16.55	GrG:Mix	7,558	317.7
D. Luke Bowser	New Enterprise	9.78	GrH:Mix	7,538	311.8

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Ross Hershberger	New Enterprise	9.53	GrG:Mix	6,726	311.8
Harry Gephart	Loysburg	15.26	GrG:Mix	6,975	310.4
Albert B. Replogle	New Enterprise	18.35	GrH	7,749	306.6
Paul B. Stayer	Woodbury	13.05	GrG:Mix	6,889	303.1

BERKS COUNTY—(Central Berks Association)

Nathan Hoppes, Tester

Henry K. Phillips	Mohrsville	16.83	R:GrG	8,754	404.2
Martin Wolfskill	Bernville, R 2	25.05	R:GrH	10,819	380.6
Walter A. Spatz	Bernville, R 2	13.67	R:GrH	9,980	363.1
Harvey Mathias	Bernville	15.25	R:GrH:		
			Mixed	9,895	357.6
Irvin M. Miller, Son	Kutztown, R 2	21.83	R:GrG:		
			Mixed	7,476	349.1
Daniel E. Heffner	Reading, R 2	18.42	GrH:Mix	9,221	332.3
John W. Wessner	Kutztown, R 1	16.53	GrG:GrH	8,308	331.2
John T. Balthaser	Mohrsville, R 1	32.95	R:GrH:		
			Mixed	8,709	330.8
Raymond Faust	West Leesport	17.09	GrH:Mix	8,223	314.7
James W. Phillips	Centerport	14.59	R:GrH:		
			Mixed	8,576	312.5
Herbrt Kalbaceh	Bernville, R 2	32.82	R:GrH	8,819	305.4

BERKS COUNTY—(Northern Berks Association)

C. Levi Scheidy, Eugene McCauley, Testers

Chas. W. Scheidy	Bernville, Pa.	8.74	R:GrH	12,266	421.5
Kissel Manor Farms	Lititz, Pa.	23.06	RJ	7,370	400.0
David Moll	Hamburg	23.32	R:GrH	11,937	388.6
Paul Anthony	Strausstown	21.58	RH:GrJ	10,183	385.3
Paul Kohler	Hamburg	25.57	R:GrH		
			GrG	9,627	353.1
Log Cabin Farms	Lititz, R 4	19.81	RJ	6,050	346.5
Walter J. George	Lenhartsville	15.22	RH	10,044	343.3
Paul Wessner	Fleetwood	12.30	RH:Mixed	9,493	337.8
Walter Binkley	Lititz	12.75	RG	6,354	321.7
Oscar Spayd	Lititz	16.16	RG	6,472	313.5
Raymond P. Delong	Bowers	23.33	RG	6,482	313.0
Milton H. White	Lititz	11.55	R:GrG	6,439	302.8

BERKS COUNTY—(Western Berks Association)

Mark Balthaser, Tester

*J. Barlow Cullum	Reading R 2	28.92	RG	9,834	503.9
*Caroline Archer	Reading R 1	40.23	RG	9,106	486.6
*Wernersville State Hospital	Wernersville	84.13	GrH	12,048	420.1
George M. Miller	Mt. Aetna	8.96	R:GrH	11,042	388.5
*Lonicera Farms	Douglassville	50.37	R:GrG	7,595	384.5
Wilson Balthaser	Bernville	6.27	GrH:GrG	8,173	337.8
Mrs. K. C. Sternberg	Reading R 2	20.18	RA:Mixed	7,731	334.4
Bethany Orphans Home	Womelsdorf	16.66	R:GrH	10,368	333.3
Charles Ritzman	Sinking Springs	21.25	R:GrH	9,587	326.3
Charles Bender	Bernville	10.77	RH	8,761	322.1
*Part of herd milked three times daily.					

BLAIR COUNTY—(Blair Association)

Cloyd K. Bagshaw, Tester

Emory Sollenberger	Williamsburg RD	7.03	RH	12,941	434.4
J. M. Delozier	Holidaysburg RD	12.71	RSw	10,080	412.0
*Alva R. Long	Portage RD	33.80	RGrG	8,608	410.4
K. S. Bagshaw	Holidaysburg RD	8.57	RSw	9,745	407.1

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Herbert Bridenbaugh	Martinsburg RD	25.94	Mixed	9,171	381.8
Oliver C. Ritchey	Martinsburg RD	32.49	RGrH	9,809	381.6
G. Clair Smith	Martinsburg RD	15.87	RGrH	10,525	375.4
*Blair Co. Home	Hollidaysburg RD	32.58	RGrH	10,404	373.4
Preston C. Smith	Martinsburg RD	11.34	RGrH	9,132	351.0
R. I. Tussey	Hollidaysburg RD	11.25	RGrH	8,512	318.4
Miles C. Bagshaw	Hollidaysburg RD	12.15	RGrSw	7,318	317.3
Thurman Hileman	Hollidaysburg RD	17.26	GrSw	7,362	315.2

*Part of herd milked three times daily.

BRADFORD COUNTY—(Canton Association)

Clifton Erway, Tester

Elwin Baldwin	Canton	15.74	R:GH	11,701	412.6
**H. G. Wright	Canton	12.70	R:GrG	7,889	406.4
Edgar Seeley & Son	Canton	18.41	GrH:Mix	11,082	402.7
Philip Isaacs	Canton	17.00	RHMix	10,366	392.3
John L. Brackman	Canton	16.02	R:GrG	8,363	392.3
*R. G. Williams & Sons	Canton	15.82	RH	11,605	392.2
T. M. Watts	Canton	16.48	R:GrH	10,584	391.9
R. H. Fleming	Troy	19.01	RH	10,695	374.7
Quay Ward	Leolyn	13.04	R:GrJ		
			GrH	8,959	372.5
Clarence Spencer	Canton	15.22	R:GrH		
			GrJ	9,980	371.7
J. P. VanFleet & Son	Canton	9.13	R:GrJ	6,917	366.5
Miss Lydia Owens	Canton	9.48	R:GrJ:		
			Mixed	7,620	361.9
Thomas Owens	Canton	5.53	R:GrJ	7,281	348.9
William Foulkrod	Canton	17.18	R:GrJ:		
			GrH	8,381	344.2
J. C. Fleming & Sons	Granville Summit	12.99	RG	7,149	341.0
Marvin Tebo	Leolyn	13.07	R:GrH:		
			Mixed	8,511	331.8
F. C. Newell & Son	Troy	20.21	R:GrH:		
			Mixed	8,421	326.4
J. D. Becker	Canton	12.91	R:GrH	8,866	323.1
J. Frank Ferguson & Sons	Canton	21.14	GrH	8,765	321.0
D. E. Taylor	Grover	30.98	GrH:GrJ	7,778	312.0
W. F. Bohlayer	Canton	18.2	RH	8,868	309.6
Harry R. Howlett	Granville Summit	24.78	R:GrG:		
			Mixed	7,020	309.0
Mack Hager	Leolyn	10.85	R:GrH:		
			GrJ	7,461	302.9
Earl Wilcox	Canton	9.87	GrH	7,922	302.2
Charles H. Campbell	Leolyn	21.33	GrH:GrJ	7,438	301.8

*Milked three times daily.

**Milked three times daily for 5 months.

BRADFORD COUNTY—(Laurel Hill Association)

C. J. Griggs, Tester

Fox Chase Farms	Towanda	131.21	R:GrH:		
			GrG	11,062	418.7
Wm. L. Pruyne	Ulster	20.58	RH	10,739	389.1
A. E. Madigan	Towanda	20.05	R:GrH	9,795	356.5
Raymond B. Arnold	Milan	30.77	RH	9,355	351.5
Leland R. Palmer	Ulster	17.23	R:GrH:		
			GrJ	8,873	347.6
Charles S. Chaffee	Ulster	20.49	RH	9,362	346.5

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Jerseys are profit-making cows. Intelligent breeding for countless generations has fixed their production efficiency and pleasing type.

Pennsylvania has many outstanding Jersey herds. At Le Raysville, a Jersey herd of more than thirty cows has averaged consecutively 409.35 lbs. butterfat, 435.60 lbs. butterfat for the past two herd testing years. At Diamond, another herd has averaged 428.40 lbs. butterfat, 443.21 lbs. butterfat. Another herd located at Clearfield has averaged over 400 lbs. butterfat for three consecutive years. These records were made through the American Jersey Cattle Club Herd Improvement Registry.

We shall be glad to have you write us for facts about Jerseys in Pennsylvania. Your inquiries will receive prompt attention.

THE AMERICAN JERSEY CATTLE CLUB

324-P West 23rd St., New York, N. Y.

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
F. W. Gorham	Wysox	19.82	R:GrH	9,631	344.5
Bradford Co. Home	Troy, RD	21.69	R:GrH: Mix	9,043	333.3
I. P. Chaffee	Towanda	18.62	RJ	5,512	303.1

BRADFORD COUNTY—(Troy Association)

Harold F. Ayers, Tester

G. E. Beach & Son	Columbia X Roads	15.79	RH	10,284	379.8
J. M. Rockwell & Son	Troy, RD3	18.44	R:GH:PJ	8,716	356.8
Bert Wilcox	Wellsburg, N. Y.	11.12	GH:Mix	8,716	356.8
Lloyd Wolfe & Son	Troy	8.93	RJ	6,405	351.9
B. J. Parmenter	Columbia X Roads	12.87	RH	10,988	346.0
Ben Ballard & Son	Troy	19.25	RH	9,972	335.5

BRADFORD COUNTY—(Ulster Association)

Paul F. Dorr, Tester

Raymond Huff	Milan	13.55	RJ	7,737	470.1
H. G. vonWolffradt	Athens	16.70	RJ	8,305	440.0
H. W. Russell	Orwell	12.43	RH	10,508	417.5
*Claude S. Gorham	LeRaysville	37.40	RJ	7,737	412.1
G. E. Harris	Milan	12.23	RJ	6,840	412.1
L. A. Harris	Milan	9.10	RJ	7,036	405.7
M. B. Chilson	Nichols, N. Y.	13.25	R:GrH	10,299	385.4
Damon Young	Milan	13.39	RJ	6,767	382.1
Harry J. Layman	Ulster	14.49	R:GrH: R:GrJ	9,345	378.8
G. E. Ballentine	Milan	11.74	RJ	5,958	324.4
Ed. Burleigh	Towanda	8.85	Mixed	7,271	322.2
M. A. Cranmer					
C. H. Wood	Ulster	32.45	GrJ:GrH	6,836	315.3
Frank H. Colwell	Ulster	17.84	RA	7,045	308.2
E. E. Wilson	Nichols, N. Y.	16.25	P:GrJ: Mixed	6,921	307.6
N. B. Wilmot	Rome	24.88	GrH	8,831	306.5

*Milked three times daily

BRADFORD COUNTY—(Wyalusing Association)

Fred L. Campbell, Tester

M. V. Bennett	Laceyville	16.50	RJ	7,440	419.3
M. M. Snyder	Wyalusing	21.00	R:GrG	7,416	359.6
S. L. Culver	Laceyville	21.23	RH	10,447	351.1
Taylor McCarty	Sugar Run	13.41	RH	9,855	350.0
Karl D. Shiner	Towanda	23.55	R:GrJ	6,850	339.7
L. J. Robinson	Rome	11.66	P:GrH	8,317	323.2
R. L. Blocher	Wyalusing	17.39	P:GrH	8,954	314.1
C. B. Culver	Laceyville	27.78	R:GrH	9,186	311.6
L. E. Sharer	Laceyville	14.41	P:GrH	8,903	310.8
N. C. Bennett Est.	Laceyville	8.21	R:GrG	6,867	306.9
J. H. Ford	Rome	13.22	RH	8,878	305.1

BUCKS COUNTY—(Bucks No. 1 Association)

Earl Whitman, Tester

*J. P. Canby & Son	Hulmeville	37.07	RH:Mix	12,144	449.6
*D. H. Diehl	Pipersville	12.44	RJ	8,561	448.1
E. F. Stewart	Colmar	13.53	RG	8,549	427.3
*Lewis Duerr, Jr.	Langhorne	12.04	RH	12,069	408.4
Bolton Farms	Bristol	27.68	RG	7,514	378.4

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
L. P. Satterthwaite	Newtown	21.61	RH	10,287	366.8
J. S. Briggs	Yardley	17.97	RG	7,779	366.3
Williams & Harley	New Hope	27.37	R:GrG	7,452	360.6
Philip W. Smith	New Hope	27.14	R:GrG	7,347	355.3
Henry C. Pickering	Woodbourne	11.00	R:GrG: Mix	8,280	350.8
J. Iden Smith	New Hope	24.24	R:GrG	7,099	349.9
M. C. Satterthwaite	Woodside	14.90	RH	10,363	344.4
F. E. Snively	Newtown	17.10	R:GrH: GrG	8,472	343.3
R. E. Atkinson	Wrightstown	12.97	RJ	6,410	340.0
Willard Wright	Yardley	16.55	R:GrH	10,217	331.7
J. D. McConnell	Solebury	8.45	R:GrJ	6,756	329.8
A. Satterthwaite	Yardley	13.73	RH	9,840	328.6
Claude Myers	Plumsteadville	28.25	R:GrG	6,340	326.9
James E. Watson	New Hope	7.73	R:GrG: Mix	6,319	315.0
M. Hubert Walton	New Hope	13.76	R:GrG	6,440	313.6

*Part of herd milked three times daily

BUCKS COUNTY—(Bucks No. 2 Association)

Alfred Shingledecker, Tester

W. Hunsberger	Plumsteadville	17.68	RH	11,868	436.1
Homer Wentz	Quakertown	16.33	R:GrH:G	11,943	430.2
A. Worthington	Newtown	15.43	R:GrG	8,269	412.1
C. H. Smith & Son	Wycombe	14.57	R:GrG	7,786	396.4
Lester P. Frey	Riegelsville	22.23	R:GrSh: Mix	10,132	389.0
Edwin Linson	Jamison	29.09	GrH:Mix	9,560	371.1
S. C. Diehl	Durham	14.12	R:GrH: Mix	9,085	341.9
Mrs. Bertha Ulrich	Perkasie	13.36	RJ	6,779	339.7
Wilmer A. Twining	Wycombe	11.75	RH	9,564	338.5
Isaac S. Gross	Plumsteadville	17.73	RH	10,159	338.2
A. S. Mumbauer	Quakertown	17.70	RA	8,268	337.0
J. Howard Cliffe	Ivyland	15.02	R:GrG	7,269	335.3
J. Arthur Shelly	Fountainville	16.50	R:GrG	6,964	326.3
H. K. Riegel	Durham	17.47	Mixed	8,709	321.6
Frank Oehrle	Hatboro	13.93	RH	9,852	320.6
Harry C. Wilson	Richboro	41.32	GrH:Mix	8,311	310.2
Jos. W. Hallowell	Ivyland	21.46	R:GrH	9,373	306.6
Joseph S. Parry	Rushland	29.40	R:GrG: Mixed	6,340	304.4
Max Frey	Ottsville	20.25	RJ	6,346	303.7
John L. Stover	Ivyland	15.33	R:GrH	8,766	300.7
Andrew Palmer	Quakertown, R 4	16.92	RJ	5,496	300.0
E. C. Mann	Ardmore	31.00	GrG	6,125	300.0

BUTLER COUNTY—(Butler Association)

George J. Hock, Tester

Lee R. Critchlow	Harrisville, RD	13.96	RJ	7,699	468.8
C. A. Wachsmuth	Butler, Star Route	6.93	RG	7,746	408.2
John L. Schiever	Harmony, RD	29.08	R:GrJ: Mixed	8,731	384.7
Hugh Fergus	Slippery Rock, RD	33.89	GrG:Mix	7,805	363.6
J. C. Belles & Sons	Harmony, RD	13.44	RH	10,652	354.3
R. N. Dickey	Slippery Rock	10.23	R:GrG	6,955	350.5

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
J. G. Henricks	Butler, R 1	20.71	R:GrJ: GrG	6,284	335.9
Thomas Cooper & Son	Slippery Rock	23.11	RJ	6,353	328.7
L. G. Wilson	Valencia	11.26	RH	9,100	313.3

CENTRE COUNTY—(Centre No. 1 Association)

Ira Whiteman, Tester

*Western Penitentiary	Bellefonte	83.82	R:GrH	17,023	567.3
**Peters Brothers	Port Matilda	12.14	R:GrH	12,060	424.4
T. C. Kryder	Mill Hall	14.65	RH	12,187	422.5
Locust Lane Farm	Beech Creek	12.15	R:GrG	8,335	413.4
Gilbert C. Waite	Port Matilda	11.01	R:GrG	8,144	406.5
H. L. Knecht	Mill Hall	9.54	R:GrH	10,755	397.4
Mill Brook Farm	Mill Hall	19.13	RH	10,564	371.4
Fox Brothers	Mill Hall	11.17	R:GrH	10,438	367.2
S. F. Esterline	Greenburr	10.03	RJ	6,731	364.7
F. W. Gross	Warriors Mark	8.96	GrH:GrG	9,417	344.5
Wm. R. Camerer	Jersey Shore	12.42	R:GrH	9,736	343.2
Shoemaker Bros.	State College	28.74	R:GrH	10,555	341.4
Hugh C. Hayes	Mackeyville	22.25	GrH:GrG	8,093	334.8
Fred Davidson	Warriors Mark	11.35	R:GrG	7,333	319.8
Homestead Dairy	Mill Hall	11.60	GrH	9,121	317.1
Geo. E. Weight	Bellefonte	18.06	R:GrH	9,027	308.7
L. R. McGill	Salona	15.49	R:GrH	8,326	301.9

*Milked three times daily

**Milked three times daily for 5 months

CENTRE COUNTY—(Centre No. 2 Association)

Harry S. Haagen, Tester

Harold Brungart	Smullton	14.42	RJ	6,402	365.9
Frank E. MacIntire	Rebersburg	14.92	R:GrH	9,470	358.2
Harry E. Confer	Howard	13.24	R:GrH	9,927	353.9
Harry M. Smith	Bellefonte	19.60	R:GrH	9,380	323.6
A. J. Burrell	Millheim	13.76	RH	9,802	321.6
George E. Long	Howard	9.15	R:GrH	9,587	310.8

CENTRAL PENNSYLVANIA GUERNSEY BREEDERS ASSOCIATION

George A. Luse, Tester

J. W. Burkett & Son	Tyrone	12.01	R:GrG	9,490	455.4
D. A. Morrow	Tyrone	11.47	RG	8,524	436.9
J. E. Hindman	Tyrone	24.28	RG	8,189	403.3
Aug. E. Farabaugh	Loretto	5.60	RG	8,010	396.9
Web. Griffith Est.	Ebensburg	19.58	RG	7,337	389.1
W. H. Pease	Belwood	11.96	R:GrG	8,023	386.2
E. Paul Hoover	Patton	14.90	R:GrG	7,433	365.9
Russell J. Edwards	Ebensburg	22.74	GrG:Mix	7,560	364.4
Mayes & Vonada	Howard	14.73	R:GrG	7,497	362.2
S. B. Wasson	State College	19.71	R:GrG	7,525	358.6
Englebert Farabaugh	Loretto	12.97	R:GrG: GrH	7,754	357.1
Mrs. C. M. Schwab	Loretto	15.26	RG	6,728	355.7
Leon Cox	Warriors Mark	15.11	R:GrG	7,246	350.6
Wilber Smith	Tyrone	13.84	GrH	9,571	349.4
Paul Yahner	Patton	9.64	PJ	5,918	335.0

CHESTER COUNTY—(Chester Valley Association)

Warren Shingle, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
O. Jackson Meyer, Jr.	Glen Moore	28.27	RG	7,198	384.1
Frank A. Keen	West Chester	24.61	RH	10,729	377.8
Gov. Cadwalader	West Chester	11.24	R:GrG	7,485	368.9
W. G. Mendenhall	Downington	37.31	GrH	10,225	353.7
G. Fairlamb Beale	Linc. University	15.23	RJ	7,357	348.0
Wallace Pearson	Downington	25.01	RJ	6,462	334.5
James Latta	Parkesburg	11.76	GrG	7,039	333.0
Jos. Bicking Est.	Whitford	26.28	R:GrG	7,031	314.2
William Lloyd	Downington	28.07	RJ	5,773	302.1

CHESTER COUNTY—(Coventry Association)

L. R. Shingle, Tester

Pennhurst State School	Pennhurst	92.83	GrH	14,088	475.4
F. H. Gyger	Kimberton	29.05	Mix:RH	10,579	433.9
R. S. Grubb	Spring City	19.29	R:GrG:GH	9,312	404.0
Wm. High	Phoenixville	10.48	RH	10,461	362.6
Harvey Fisher	Phoenixville	19.83	GrH:Mix	8,345	345.0
(Herd 1)					
H. L. Stoltzfus	Pottstown	16.41	RH:Mix	9,924	340.1
A. Detwiler	Phoenixville	18.61	R:GrJ:H	7,574	335.8
I. H. Kulp	Phoenixville	17.08	GrG:H	7,902	333.6
Mrs. Carl Martin	Anselma	38.58	R:GrG	7,063	330.9
H. J. Bickel	Pottstown	20.11	RH:Mix	8,804	329.4
Valley Hill Farm	Phoenixville	43.26	R:GrG	6,878	319.8
Rose Way Farm	Paoli	36.07	R:GrG	6,234	307.0
Laurel Locks Farm	Pottstown	119.93	R:GrG	6,445	304.5
H. R. Swavely	Pottstown	30.84	GrH:G	8,479	300.0

CHESTER COUNTY—(Oxford Association)

Philip Harris, Tester

H. S. Gatchell	Peach Bottom	17.92	RJ	7,691	429.2
Reid & Dickey	Oxford	11.52	Mix	11,169	408.7
D. L. Gallagher	(Lower Barn)	19.73	R:GrJ	7,811	382.1
Mrs. Louise Wade	Chatham	38.00	Mix	8,228	373.2
Edward Goodwin	West Grove	24.41	Mix	7,799	365.1
Thomas Sloan	Oxford	22.98	Mix	8,522	363.0
James Hastings	Kirkwood	35.04	RG	7,157	362.5
*Pierre S. duPont	Kennett Sq.	55.78	RG	7,188	354.9
H. L. Stubbs	Oxford	25.92	Mix	9,262	347.2
Dr. E. A. Webb	Avondale	21.44	GrG	6,922	343.1
Caleb Chambers & Son	West Grove	22.69	Mix	7,451	339.8
Everett Holt	Linc. University	20.79	GrJ:GrH	7,086	336.8
(2) T. I. Lawrence	Linc. University	22.64	Mix	7,586	335.2
Fred Whiteside	Oxford	21.95	R:GrH	7,511	330.4
D. L. Gallagher	(Upper Barn)	25.81	R:GrG	6,729	320.0
Edgar Haines	West Grove	24.52	GrG	6,672	319.6
R. H. Ferguson	Kirkwood	33.46	RG	6,733	319.0
Allen Dubble	Peach Bottom	15.24	RJ	6,204	318.2
Conner & Killinger	Avondale	42.29	R:GrJ	6,600	318.0
L. R. Hourdequin	Avondale	31.27	R:GrG	6,657	316.0
Hayes Lindsey	Oxford	9.62	Mix	7,282	314.1
Dr. Wm. B. Ewing	West Grove	49.69	R:GrG	6,121	307.3
*Part of herd milked 3 times					
(2) Eleven months					

CHESTER COUNTY—(West Chester Association)

Walter L. Pearl, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Delaware Co. Home	Lima	17.10	GrH	12,320	413.2
E. P. Allinson	West Chester	25.19	RH	11,545	401.1
Liseter Farm	Newtown Square	33.96	R:GrG	8,175	393.8
Dunwoody Home	Newtown Square	15.94	RH	9,770	389.3
Lawrence Folchman	West Chester	23.13	R:GrH	10,377	357.5
LeRoy Harvey Est.	West Chester	25.41	RG	7,154	354.1
Wm. I. Reeves	Marshallton	15.08	GrG:GrJ	7,233	353.2
E. T. Trigg	Malvern	39.50	RG	7,194	346.0
M. L. Jones	Westtown	135.51	R:GrH	9,742	335.4
Norman W. Frank	West Chester	33.69	GrH:GrG	8,309	328.7
Wm. B. Rhoads	West Chester	23.99	RGrH	8,520	322.2
Clement S. Rutter, Jr.	Phoenix	12.38	GrG:GrJ	7,090	321.7
Westtown School	Westtown	47.91	R:GrG	8,041	317.4
Harvey Williams	Coatesville	36.89	R:GrG	6,304	315.1
John Stratton	West Chester	9.36	RH:GrG	6,380	307.9

CLARION COUNTY—(Clarion No. 1 Association)

George Cole, Tester

*Parker View Farm	Parkers Landing	17.05	RG	9,405	426.9
Ray H. Shook	Sligo, RD	17.75	R:GrG	8,682	421.1
J. P. C. King	Summerville	8.46	RH	11,668	404.5
E. H. DeVilder	Miola	7.36	RG	7,772	398.5
R. L. Fleming	New Bethlehem	16.36	R:GrG	7,661	397.6
F. L. Stahlman	New Bethlehem	5.14	R:GrG	6,791	381.8
Wm. & C. A. McCauley	New Bethlehem	24.60	RH	10,409	379.3
J. W. Hartman & Son	Sligo	15.74	R:GrG	7,489	376.7
J. W. M. Gruber & Son	Shippenville	33.32	R:GrG	7,460	372.2
**O. S. Burnham	Corsica	8.28	RG	7,574	364.9
R. M. Burnham	Strattonville	12.00	RG	7,610	361.8
E. C. Frampton	Sligo	10.79	R:GrG	7,007	353.4
W. W. Kuhns	Sligo	8.65	R:GrG	7,177	352.3
H. G. Mahle	Miola	9.81	R:GrG	6,192	313.4
C. L. Risher	East Brady	22.84	RH:R: GrG	8,661	310.1
F. S. Port	Clarion, R 1	24.55	RG	6,410	307.5

CLEARFIELD COUNTY—(Clearfield Association)

Alvin Smith, Tester

S. J. Zemka	Clearfield, R.D.	11.76	Mixed	9,767	463.1
Morris W. Shimmel	West Decatur	12.54	Mixed	9,228	300.2
Wendell Turner	Philipsburg, R.D.	23.27	R:GrH	9,587	392.7
S. R. Thompson Est.	Philipsburg, R.D.	15.35	P:GrJ R:GrH	9,212	388.1
White Oaks Farm	Clearfield	15.41	RJ	6,803	385.0
A. G. Haag	DuBois, R.D.	16.32	R:GrG	7,103	362.6
Benson Dale	Woodland	18.92	R:GrJ	6,518	361.2
S. V. McKee	Westover	8.99	R:GrG	6,755	352.2
Arrowhead Farm	Morrisdale	11.67	R:GrJ	6,094	347.2
E. P. Young	Westover	7.88	GrJ	6,012	329.2
Hotel Logan Farm	DuBois	16.25	R:GrG:P: GrH	7,426	329.2
C. O. Mattern	Osceola Mills	19.65	RG	6,625	320.3
G. B. Wachob	DuBois, R.D. 2	12.27	R:GrH	8,260	318.8
Bell Vue Farm	Bigler	7.95	R:GrJ:RH	6,760	316.0
Perry Straw	Kermoor	9.75	R:GrH: GrG	7,755	315.3

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
D. T. Mitchell, Jr.	Mahaffey, R.D. 2	20.07	R:GrJ	6,055	313.2
Clearfield Co. Home	Clearfield	17.02	GrH	8,533	311.4
R. H. Mull (Hale Est.)	Philipsburg	8.83	GrG	6,393	310.1
M. C. Brothers	Cherry Tree	16.46	R:GrH: GrG	7,324	303.4

*Milked three times daily for 6 months

**Milked three times daily for 2 months

COLUMBIA COUNTY—(Columbia Association)

Earl E. Erdman, Tester

**Col. Dorrance Reynolds	Dallas	21.34	RG	8,763	421.6
*Central Poor District	Retreat	47.34	RH	12,651	404.9
***Wm. J. Fairchild	Berwick	24.76	RH:R GrJ	10,536	404.8
G. W. Hack & Sons	Berwick	36.18	R:GrG	7,744	374.6
Danville State Hospital	Danville	92.83	R:GrH	10,578	359.9
R. J. Breisch	Catawissa	24.87	GrG:Mix	7,331	328.4
F. F. Hayman	Stillwater	13.37	RG	6,668	318.9

*Milked three times daily

**Milked three times daily for 4 months

***Milked three times daily for 3 months

CRAWFORD COUNTY—(Crawford Venango Association)

Wendell Bauer, Tester

Joseph Poux	Guys Mills, RD 2	8.14	GrH	12,899	455.9
Harry I. Sharp	Diamond	5.96	RJ	7,998	435.8
Mrs. Nova Noel	Guys Mills, RD 3	8.73	R:GrJ	8,422	426.3
R. W. & L. L. Luce	Guys Mills, RD4	14.04	R:GrJ	7,877	389.0
Merle W. Ongley	Centerville, RD 4	11.61	R:GrH	10,839	372.6
James O. Orr	Townville	6.53	GrH	10,405	372.1
Harry Whitman	Diamond	6.90	RJ	7,326	371.9
Wesley Reitze	Meadville, RD 5	8.99	RH	9,663	351.0
Harold L. Borland	Meadville, RD 5	7.63	R:GrJ	6,336	343.2
D. C. Pettigrew	Guys Mills, RD 4	7.51	RJ	6,566	338.6
F. O. Ribb	Diamond	10.70	GrH:G	7,875	327.5
Frank Strawbridge	Titusville, Star Rt.	15.30	R:GrG	6,847	327.1
J. G. Sherred	Venango	20.93	RH	9,574	319.1
Lloyd Smith	Meadville, Star Rt.	19.57	RH:Mix	8,058	313.3

CRAWFORD COUNTY—(Titusville Association)

Karl Yingling, Tester

James Kelly	Spartansburg	15.58	RG	8,253	404.6
Raymond Harrison	Titusville	20.86	R:GrH	10,465	381.5
Harry Wheatall	Titusville, R 2	11.22	R:GrH: Mixed	9,856	371.1
Will Hasbrouck	Titusville, R 2	16.85	RH	10,272	360.9
G. M. Hummer	Titusville, R 2	14.26	RJ	6,728	355.4
D. N. Burrows	Pleasantville, RD	16.15	R:GrH	10,489	346.3
M. D. Ongley	Grand Valley	10.40	Mixed	7,120	341.4
A. K. Hummer	Titusville, R 2	21.47	RH	9,337	332.9
J. P. Harrison	Centerville, R 1	18.48	GrH:GrG	8,627	317.7
Wm. H. Howard	Centerville, R 5	7.62	R:GrJ	5,923	315.6
Geo. Mattison	Centerville, R 1	18.31	R:GrH	8,411	311.2
E. W. Hummer & Son	Titusville, R 2	29.83	R:GrJ	5,770	308.4
Andrew C. Watson	Titusville, R 2	15.33	Mixed	6,367	307.1
Mark J. Kelly	Centerville, R 5	7.45	R:GrH	9,140	303.0

CRAWFORD COUNTY—(Western Crawford Association)

Albert J. Crowl, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Riverside Stock Farm	Cambridge Springs	27.32	R:GrJ	8,365	454.5
H. W. Carrier	Atlantic	9.97	R:GrJ	8,349	372.7
Jos. Mandle	Conneaut Lake	8.13	GrG	7,089	366.7
Floyd C. Gould	Conneaut Lake	6.40	GrJ	7,301	343.8
Karl Shelhamer	Edinboro	19.47	R:GrJ: GrH	6,640	321.4
*Crawford Co. Home	Saegertown	17.50	RH	9,424	317.1
T. W. Morris	Edinboro	22.03	Mixed	6,556	312.4
Port Eckles	Venango	7.06	RG	6,063	311.4
Archie Hamner	Conneaut Lake	12.83	Mixed	7,468	310.3
H. S. Breckenridge	Meadville	15.47	R:GrG: Mix	6,625	303.5

*Milked three times daily for three months

CUMBERLAND COUNTY—(Original Cumberland Association)

A. A. Raudabaugh, Tester

Ivo V. Otto	Carlisle, RD 6	32.28	RH	12,745	436.4
A. G. Wingert	Mechanicsburg, R 5	14.71	RH	11,924	427.4
H. K. McCullough	Newville, RD 1	26.83	RG	8,252	415.1
Methodist Home	Mechanicsburg	21.19	R:GrH	11,545	413.1
Miss Anne McCormick	Harrisburg	5.33	RG	7,907	404.0
J. Walter Rupp	Mechanicsburg, R 4	13.54	R:GrH	11,480	396.0
J. H. Lear	Carlisle, RD 5	18.50	RH	10,773	394.6
Mark R. Basehore	Mechanicsburg, R 4	13.53	R:GrH	11,391	391.2
Albert F. Kost	Carlisle, RD 1	20.87	RH	10,800	379.4
George L. Snyder	Carlisle, RD 6	8.41	RH	10,682	376.3
S. W. Zeigler	Mechanicsburg, R 2	14.20	RH	11,074	371.7
C. M. Cornman	Mechanicsburg, R 5	14.99	R:GrH	10,745	371.5
Jesse E. Kurtz	Carlisle, RD 4	7.38	RH	10,123	369.3
G. Weir Strock	Mechanicsburg, R 2	29.89	R:GrH	10,334	368.6
Ludt Brothers	Carlisle, RD 5	15.63	RH:GrJ	9,604	365.2
E. P. Brindle & Son	Mechanicsburg, R 1	13.08	R:GrH	10,640	361.8
George M. Harman	Barnitz	11.52	R:GrG	7,849	351.7
Walter A. Eckert	Mechanicsburg, R 5	18.21	RG	7,323	350.3
S. B. Weber & Son	Mechanicsburg, R 2	24.71	R:GrH	10,451	348.1
Abner E. Rider	Mechanicsburg, R 2	16.08	RH	10,197	346.2
Dr. E. S. Deubler	Narberth	15.25	RA	8,161	340.0
Wilbert Kreitzer	Mechanicsburg, R 4	13.73	R:GrH	10,012	339.6
J. N. Kruger, Herd No. 1	Carlisle, RD 2	17.65	RA	8,732	333.6
C. G. Niesley	Mechanicsburg, R 1	18.07	RH	8,914	325.6
George Nauss, Jr.	Mechanicsburg, R 4	18.28	R:GrH	9,468	323.6
Harry E. Hamsher	Camp Hill, RD 1	9.12	R:GrH	9,090	320.3
J. N. Kruger, Herd No. 2	Carlisle, RD 2	34.82	R:GrG:RH	7,202	300.0

Herds were all milked two times daily

CUMBERLAND COUNTY—(Second Cumberland Association)

J. Paul Shughart, Tester

Guy L. Loy	Newville, RD 2	16.83	RA:GrH	10,930	427.6
John H. Rolar	Newville, RD 2	9.17	RH	11,647	420.6
Wallace W. Pepper	Newville, RD 1	9.67	RH	11,152	409.1
W. A. Woods & Son	Carlisle, RD 4	6.69	RH	12,350	404.8
J. Brady Smith	Shippensburg, RD 2	16.74	R:GrH	11,173	383.9
S. Ellsworth Landis	Newville, Bx 373	15.35	GrG	8,110	378.8
Charles C. Hoffer	Carlisle	14.48	R:GrH	10,284	378.2
Mervin C. Shughart	Mechanicsburg, R 5	8.58	R:GrH	10,748	371.9
Elias H. Otto	Carlisle, RD 6	9.07	Mixed	10,032	350.3

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Hugh L. McMeen	Carlisle, RD 6	23.94	R:GrH	10,222	348.9
Albert A. Adams	Carlisle, RD 5	17.48	R:GrH: GrG	9,600	348.1
Harper J. Wetzel	Carlisle, RD 4	10.30	RH	10,207	338.6
E. H. Hess & I J. Zercher	Mechanicsburg, R 2	12.35	RH	9,836	337.9
R. Bruce Stuart	Carlisle, RD 3	17.65	RH	10,186	333.3
Foster B. Shughart	Carlisle, RD 1	6.90	GrH:GrG	8,229	325.1
Paul O. Sunday	Carlisle, RD 1	12.55	R:GrH	8,627	311.6
John W. Raudabaugh	Carlisle, RD 1	17.72	R:GrH	9,366	306.2
Ernest Shover	Carlisle, RD 1	14.09	R:GrH: Mixed	8,463	304.8
Harry M. Whistler	Carlisle, RD 4	7.58	R:GrH	9,117	303.0
*John A. Smith & Sons	Dickinson	7.29	R:GrG	6,697	302.0

*9 months' record

DAUPHIN COUNTY—(Dauphin Association)

Warren Bucher, Tester

**Benjamin A. Weiss	Lykens	6.57	R:GrH	13,167	473.8
Dauphin County Home	Harrisburg	23.73	R:GrH	11,415	376.9
Samuel B. Williams, Jr.	Highspire	19.92	R:GrJ	7,576	373.1
A. H. Erdman	Elizabethville	19.01	RH	11,103	362.3
C. K. Fertig	Dauphin	9.18	RH	11,227	360.6
*Harrisb'g State Hosp.	Harrisburg	56.27	R:GrH	11,635	352.4
C. E. Cassel & Son	Hershey	11.29	RG	7,048	344.3
Howard Speece	Dauphin	28.70	R:GrH	9,297	337.7
Max A. Laufer	Middletown	11.95	RH	9,388	333.3
***Hershey Ind. School	Hershey	86.10	R:GrH	9,722	329.1
P. H. Wightman	Dauphin	13.49	R:PA	7,971	329.0
Rasmussen & Cater	Hummelstown	9.65	RH	9,437	311.6

*Three times milking

**Milked three times daily for 6 months

***Milked part of the herd three times daily

ERIE COUNTY—(Wattsburg Cow Testing Association)

Joseph S. Thurston, Tester

Glenn Steves	Waterford	10.37	RH	11,211	390.3
Henry Marsh	Waterford	16.72	R:GrH	11,534	382.5
Harold A. Trask	McKean	15.50	R:GrH	9,549	355.3
Frank Blackman	Wattsburg	15.81	R:GrH	10,195	344.2
*White Swan Farms	Erie, RD 1	65.02	R:GrG: R:GrH	8,463	338.8
Lester Hosbach	Erie, RD 1	29.85	RH	9,453	321.7
F. H. Hopson & Son	Wattsburg, R 4	21.15	GrH	9,377	317.8
Ames Brown	West Springfield	16.16	R:GrH	8,368	305.5

*Milked three times daily

FAYETTE COUNTY—(Fayette Association)

James E. Hartzfeld, Tester

**J. Espey Lynn	Vanderbilt	14.86	R:GrG GrH	9,968	450.2
T. W. Gans & Son	Gans	15.45	R:GrH R:GrG	10,814	419.5
G. G. Gault	Dawson	12.10	R:GrG	7,288	389.8
*Pleasant Level Dairy	Connellsville	26.80	R:GrH R:GrG	8,963	347.4
City View Dairy	Masontown	57.21	R:GrG R:GrH	8,595	342.5
E. E. Arnold	Vanderbilt	11.55	R:GrH	10,816	341.0

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Fayette Co. Home	Uniontown	17.42	R:PH	9,266	325.4
W. S. Hibbs	Uniontown	22.01	Mixed	6,806	304.4
*Milked three times daily					
**Milked three times daily for 4 months					

FRANKLIN COUNTY—(Southern Franklin Association)

R. G. Miller, Tester

Irvin P. Benedict	Waynesboro	9.28	RG	8,422	403.6
M. B. Mentzer	Chambersburg	13.10	RH	10,347	393.8
Soldiers' Orphan School	Scotland	16.14	R:GrH	10,676	391.8
*J. M. Main & Sons	Shippensburg	18.29	RJ	7,150	389.5
Ira Shank	Waynesboro	17.36	Mixed	8,434	371.1
Ray Burkholder	Waynesboro	9.07	Gr:G	7,988	369.9
George Fries	Chambersburg	14.46	RH	10,074	367.0
W. F. Barkdoll	Mont Alto	31.58	RA:GrH	9,214	344.9
James F. Dayhoff	Waynesboro	18.89	R:GrA	8,370	340.5
Mrs. C. L. Howell	Hagerstown, Md.	32.10	RG	6,356	317.4

*Part of the herd milked three times daily

FRANKLIN COUNTY—(Western Franklin Association)

Lee A. McCauslin, Tester

J. W. Hoffeditz	Mercersburg	15.59	R:GrG	9,298	423.1
Dr. H. S. Arthur	Ft. Loudon	18.25	R:GrG	8,041	369.8
Wilson Sisters	Metal	9.18	R:GrG:		
			Mixed	6,649	362.3
J. W. Aughinbaugh	Mercersburg	16.17	R:GrG	7,289	359.3
C. H. Negley	Mercersburg	23.50	Mixed	7,944	316.1

HUNTINGDON COUNTY—(Huntingdon Association)

J. H. Reynolds, Tester

*Pa. Indus. School	Huntingdon	43.87	R:GrH	15,561	528.0
W. H. Woolverton	Alexandria	16.49	R:GrH	8,751	400.0
N. Z. Black	Alexandria	15.54	R:GrG	7,931	367.3
E. G. LaPorte	Alexandria	15.96	R:GrG	8,206	365.8
Charles Keller	Waterstreet	12.82	GrG:Mix	8,651	365.4
W. C. Henderson	Petersburg	15.99	R:GrSw	8,863	355.9
B. R. Byler	Mill Creek	9.11	R:GrH	9,603	353.0
H. E. Grazier	Warriors Mark	13.37	RSw	9,052	340.8
Ray F. Brown	Mill Creek	10.06	R:GrG:		
			GrH	7,095	341.2
Frank Mattern	Alexandria	15.53	R:GrH	9,839	327.5
Lake Bros.	Tyrone, R 5	17.53	R:GrH	9,588	320.6
D. M. Summers	Entriken	7.66	P:GrG	6,055	303.1

*Part of herd milked three times daily

INDIANA COUNTY—(Indiana No. 1 Association)

Carl Johnston, Tester

H. W. Mumau	Clymer, R 1	6.92	R:GrJ	7,918	439.6
I. M. Speedy	Livermore	13.25	R:GrJ:		
			Mixed	8,711	439.0
Clyde Houck	Clymer, R 1	8.69	R:GrJ	8,159	430.9
Wm. S. Wetzel	Marion Center	14.68	R:GrJ	7,838	427.7
**Indiana County Home	Indiana, RD	21.95	R:GrH	13,181	424.9
Quay McMillen	Clymer, R 1	8.33	R:GrJ	7,632	423.3
Walter Simpson	Marion Center	14.50	R:GrJ	7,361	417.3
H. N. Hyskell	Smicksburg, R 1	13.00	GrG	9,027	406.0
John S. Rankin	Indiana, R 1	11.21	P:GrJ	7,175	403.8
Ira E. Gibson & Son	Blairsville, R 1	8.67	Mixed	7,988	402.4

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
W. F. Barkley	Livermore	15.62	P:GrG: Mixed	8,272	399.4
*Torrance State Hospital	Torrance	49.60	RH	12,002	390.3
Carl Walker	Marion Center	12.69	R:GrJ	7,236	389.0
C. C. Pollock	Marion Center	7.59	R:GrJ	7,799	387.3
E. G. Rice	Dixonville	9.80	R:PJ	8,438	385.9
*Milked three times daily for 10 months					
**Milked three times daily for 9 months					

INDIANA COUNTY—(Indiana No. 1 Association)

Carl Johnston, Tester

H. M. Travis	Smicksburg	12.57	R:GrG	7,783	380.4
G. C. Swan	Home, R 1	13.77	R:GrJ	6,996	372.5
Wm. C. McMillen	Home, R 1	15.82	R:GrJ	7,196	365.9
C. D. Bence	Marion Center	15.52	R:GrJ	6,247	339.7
Charles F. Allen	Dayton	10.47	R:GrG	7,052	336.6
W. G. Montgomery	Home, R 2	9.34	Mixed	7,512	326.7
Walter Ewing	Saltsburg, R 1	11.31	PG	6,315	326.6
H. H. Wetzel	Marion Center	10.42	R:PJ	6,078	324.7
Mart R. Rager	Blairsville, R 4	15.45	R:GrH:		
			Mixed	8,582	324.6
J. S. Cornell	Blairsville	14.77	R:GrH	9,555	323.9
C. S. Gerhard	Blairsville	18.21	R:PH	8,988	311.3
M. A. Smeltzer	NuMine, RD	27.79	R:GrH	8,721	309.0
H. H. Barnhart, Jr.	Livermore	18.47	P:GrH:		
			Mixed	7,389	300.0

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INDIANA COUNTY—(Indiana No. 2 Association)

Frank Ginter, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
John C. Mohney	Punxsutawney, R 1	18.77	GrJ	8,555	511.6
Henry Townsend	South Bend	8.24	RG	8,946	456.6
Clyde McConnaughey	Smicksburg	5.12	RJ	8,406	416.4
Paul S. McFarland	Shelocta	7.97	R:GrG	8,219	409.8
W. C. Bennett	Indiana	21.72	R:GrG: Mixed	8,041	402.0
H. B. Wetzel	Marion Center	6.23	R:GrJ	6,757	395.6
James A. Patterson	West Lebanon	7.28	R:GrG: Mixed	7,412	386.0
W. H. Wood	Shelocta	10.97	R:GrH	10,641	376.1
Frank Winsheimer	Indiana, R 5	24.68	GrJ	7,723	373.4
J. Mack Hood	New Florence, RD	13.97	RJ	7,257	370.7
J. F. Pounds Est.	Indiana, RD	15.23	R:GrH: Mixed	8,913	354.8
Elmer E. Dick	New Florence, RD	11.92	R:GrJ:Mix	6,802	337.4
Bert Ginter	Commodore	7.38	GrG	5,885	311.2
R. M. Hood	Huff	13.03	R:GrJ:Mix	6,073	308.3

JEFFERSON COUNTY—(Jefferson Association)

H. Forrest Haugh, Tester

Angus Wilson	Punxsutawney, R 4	9.60	R:GrJ	8,859	537.6
A. J. Bullers	Brookville, R 6	6.30	R:GrG	8,813	505.9
Harry Lindy	Reynoldsville, R 4	9.33	R:GrG	8,382	496.5
G. O. Schuckers	Brookville, R 1	14.26	R:GrH:G	11,741	461.2
Helen Shannon	Brookville	8.88	R:GrG	8,549	423.8
C. W. Calhoun	Brockway	11.16	R:GrG	9,031	388.0
E. E. Swineford	Reynoldsville, R 1	21.98	R:GrJ	7,317	381.8
E. G. Haugh	Brookville	23.20	Mixed	7,357	361.6
J. W. Syphrit	Reynoldsville, R 4	5.96	R:GrG	5,909	360.5
Howard Smith	Reynoldsville, R 2	18.99	Mixed	8,047	343.1
S. A. Shingledecker	Brookville, R 6	7.08	RG	6,329	340.8
Jefferson Co. Home	Brookville, R 6	23.92	R:GrH	9,702	337.0
Dr. F. D. Pringle	Punxsutawney	19.85	R:GrG	6,975	332.4
W. J. Youngdahl	Brockport	8.96	R:GrG	6,817	329.2
William Irvin Co.	Big Run	25.91	R:GrG	6,300	322.8
Hall's Dairy	Baxter	29.33	R:GrJ	6,255	325.1
H. E. McGarey	Brookville, R 2	20.91	Mixed	6,548	315.5

JUNIATA COUNTY—(Juniata Association)

L. Oscar Gelnett, Tester

D. Q. Adams	Mifflintown	13.08	RH	13,181	462.3
Theorous Kauffman	Mifflintown	13.08	RH	11,859	417.1
Karl A. Fettig	Port Royal	14.65	RH	11,354	400.6
H. I. Gray & Son	Honey Grove	17.79	RH	11,564	394.9
T. R. Auker	Mifflintown	12.25	RH	11,231	384.2
Carl L. Smith	McAlisterville	16.95	RH	10,004	343.0
H. E. Groninger	Port Royal	15.53	RH	9,498	335.2
T. Furman McClure	Port Royal 1	13.01	RH	9,875	327.0
C. A. Musser	Oakland Mills	8.63	R:GrH	9,358	327.0

LACKAWANNA COUNTY—(Lackawanna Association)

Donald Hindman, Tester

McLain, T. W. & Son	Moscow	41.67	GrH:Mix	9,962	346.5
Jordan, M. S.	Dalton, R 3	16.83	RH:GrG	9,655	340.9
Seamans, Vera T.	Factoryville	16.56	R:GrH:P: GrG	8,483	338.7

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Blackwell Bros.	Clarks Summit	21.82	GrH:Mix	8,495	323.5
Parker Bros.	Clarks Summit	43.72	Mixed	7,058	303.2
Linair Dairy & Poultry Farm	Waverly	22.85	RH:Mix	8,324	301.6

LANCASTER COUNTY—(Garden Spot Association)

Luke W. Martin, Tester

Ira M. Eby	Gordonville, R 1	18.14	RH	11,504	386.3
Naaman Stoltzfus	Morgantown	21.30	RH	10,981	370.7
Jacob S. Horst	Lititz, R 3	13.12	RA:Mix	9,200	358.4
M. V. Brubaker	New Holland, R 2	10.70	RH	10,388	355.7
H. K. Martin	Goodville	17.15	RH	10,546	340.4
John W. Eby	Gordonville, R 1	11.99	R:GrH	10,065	332.3
Warren L. Eby	Gordonville, R 1	13.65	RH	10,090	329.4
I. W. Brandle	East Earl, R 1	8.17	RH	9,752	325.4
Geo. G. Sauder	East Earl, R 1	14.61	RH	9,377	304.7
John A. Stayer	East Earl, R 1	23.85	RH	9,145	302.9

LAWRENCE & BEAVER COUNTY—(Lawrence Association)

W. Dale McCurley, H. Russell Smith, Testers

Lauren Thompson	New Wilmington	16.61	RJ	7,313	392.6
R. W. Hartenbach	Monaca, Box 65	12.56	R:GrG	7,955	386.2
J. W. Martin & Sons	Bessemer, Box 228	20.14	RJ	5,978	335.4
Arnold Bros.	Beaver Falls, R 4	11.31	RG	6,721	325.7
J. A. Boak & Sons	New Castle, R 4	19.12	P:RJ	5,864	314.6
H. L. McCurley & Son	Enon Valley, R 2	17.91	R:GrJ	5,740	305.0

LEBANON COUNTY—(Lebanon Association)

Warren H. Houser and John Duncan, Testers

*Jacob N. Smith	Palmyra	19.79	RG	8,849	433.9
*Fairview Farms	Cornwall	57.50	RG	8,760	429.0
*A. G. Brubaker	Myerstown	9.30	RH	11,255	401.7
Frank Heilman & Son	Lebanon, R 3	31.65	RH:GrJ	11,322	398.7
Isaac Mock	Myerstown	13.67	RG	6,715	366.0
David P. Snyder	Sheridan	18.42	R:GrH	11,302	363.9
Raymond Gible	Lebanon, R 1	14.99	R:GrA	9,218	360.9
Wm. D. Boeshore	Lebanon, R 3	10.83	R:GrG	7,540	357.9
Jos. H. Schott	Lebanon, R 6	26.20	RH	10,315	332.9
Jos. Kreider	Lebanon, R 4	17.15	RH	9,693	331.8
Harry S. Forney	Palmyra, R 2	27.10	R:GrG: Mixed	7,431	320.6
C. C. Gingrich	Palmyra, R 2	22.96	RH	9,764	304.5
David S. Bennetch	Sheridan	16.67	RH	9,254	303.7

*Part of herd milked three times daily

LEHIGH-NORTHAMPTON COUNTIES—(Lehigh-Northampton Association)

R. John Yost, Tester

L. A. Zimmerman	Lehigh, R 1	22.38	RH	15,518	500.0
*Milton M. Shoemaker	Walnutport, R 1	15.53	R:GrH	10,250	394.2
*Wm. Shoemaker	Walnutport, R 1	8.17	R:GrH	10,393	385.4
Willow Brook Farms	Catasauqua	25.17	RG	7,371	373.8
Wm. H. Rupp	Breinigsville	7.57	RH	10,932	367.3
Allentown State Hosp.	Allentown	49.87	R:GrH	11,616	365.8
*Weyhill Farms	Bethlehem, R 4	74.64	R:GrH: RG	9,415	353.4
Floyd Shook	Pen Argyl, R 1	18.73	RH	9,888	353.3
B. L. Hindenach	Easton, R 1	31.18	Mixed	8,815	351.6
Fred Lynn	Allentown, R 4	6.47	RA	8,731	345.2

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
**P. G. Lichtenwalner	Emaus, R 1	22.88	RH	9,874	342.2
River Valley Farm	Easton, R 5	36.13	R:GrH	8,978	328.6
Northampton Co. Home	Nazareth	24.45	R:GrH	10,429	328.3
Rollo Shoemaker	Mt. Bethel, R 1	18.18	Mixed	8,274	321.2
John Shoemaker	Mt. Bethel, R 1	17.51	R:GrH:		
			Mix	8,761	315.7
F. C. Behrens & Sons	E. Mauch Chunk	32.27	R:GrH	9,094	315.3
Harry F. Roth	Nazareth, R 2	9.45	RH	9,206	309.0
Harold Ziegler	Breinigsville, R 2	14.88	R:GrH:		
			GrG	8,343	305.9
Claude Kemmerer	Bethlehem, R 1	12.35	R:GrH	8,172	304.5
Harry Clewell	Easton, R 3	12.59	Mixed	7,489	304.1
A. Johnson	Bethlehem	21.14	Mixed	8,236	300.0

*Three times milking daily

**Three times milking daily for 6 months

LYCOMING COUNTY—(Lycoming Association)

Alva R. Love, Tester

*State Industrial Home	Muncy	27.56	R:GrH	14,205	473.9
C. H. Mantle	Nisbet	6.25	GrH	12,338	409.4
V. R. Fenstermaker	Jersey Shore, R 2	9.00	GrH	9,013	366.7
LaRue Reed	Hughesville, R 2	14.12	R:GrH	9,822	362.4
H. A. Snyder	Montoursville	20.56	RH	10,030	358.9
W. S. Carson	Nisbet	18.40	R:GrG	7,530	352.9
H. R. Paulhamus	Cogan Station	16.36	RH	10,045	352.5
W. R. Downs	Jersey Shore	15.36	R:GrH	9,998	350.9
W. D. Snyder	Cogan Station	20.07	RH	10,447	328.7
Harry C. Fenstermaker	Duboisstown, R 1	13.82	P:GrG:		
			GrH	8,035	324.3
Charles Stewart	Nisbet	23.16	R:GrH	9,512	314.6
G. Fred Hampe	Nisbet	10.28	GrH	8,389	313.9
W. B. Chaapel	Cogan Station	12.88	GrG	6,941	311.1
C. L. Buss	Montgomery, R 2	11.00	RH	9,536	306.3
N. D. Welshans	Jersey Shore	22.24	R:GrH	9,121	300.5

*Milked three times daily

McKEAN COUNTY—(First McKean-Elk Association)

Ralph P. Nichols, Tester

Bonny Brook Farm	Bradford	28.21	R:GrG	8,280	385.5
C. R. Tubbs	Turtle Point	12.05	P:GrH	11,212	384.4
Amandus Larson & Son	Ridgway	17.79	R:GrH		
			R:GrG	8,353	358.6
E. S. O'Mara	Bradford	52.58	R:GrH		
			R:GrG	9,191	346.5
J. M. Kirkman	Turtle Point	18.82	GrH	10,110	345.9
H. J. Gregory	St. Marys	28.36	RH	9,213	334.7
Wahlberg Brothers	Kane	23.87	R:GrG		
			R:GrH	8,198	333.6
Ideal Farms	Kane	54.01	R:GrG	6,597	325.5
C. R. Rickard & Son	Ridgway	28.47	GrH:Mix	8,903	325.0
James Freeman	Wilcox	12.83	GrH:Mix	7,400	304.8

MERCER COUNTY—(Grove City Association)

Marshall W. Runkel, Tester

Mercer Sanitarium	Mercer	12.91	RJ:GrG	9,208	511.1
W. I. Blake	Mercer	9.44	RJ	8,238	461.7
R. C. Henderson	Stoneboro	6.45	GrJ	7,888	429.5
T. P. Campbell	Grove City	20.50	R:GrG:		
			RH	9,094	425.3

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
A. D. Ramsey	Volant	8.57	R:GrJ	8,027	422.7
L. M. Cummings	Mercer	11.29	GrJ:GrG	8,157	414.4
G. G. McDowell	Grove City	16.05	RJ	7,497	400.0
C. L. Amon	Sandy Lake	12.62	GrJ:GrH	7,206	392.5
H. J. Buckley	Stoneboro	9.92	P:GrJ	7,214	384.8
Mercer Cottage Hosp.	Mercer	15.65	R:GrJ:		
			RH	8,007	380.2
J. D. Baker	Grove City	14.09	RJ	6,281	368.2
C. M. Worley	Mercer	8.25	RG	6,885	360.5
F. F. Yarian	Mercer	13.81	GrG	7,111	352.4
A. M. King	Mercer	19.59	R:PJ	6,479	347.7
Wolf Creek Farm	Slippery Rock	8.24	RG	6,353	320.4
Marvin H. McCoy	Mercer	18.52	GrG	6,383	311.5
D. G. Grace & Son	Grove City	16.58	P:GrJ	5,601	310.9
L. G. Pearson	Mercer	7.30	R:GrG	6,447	303.9
C. L. Montgomery	Stoneboro	8.15	GrJ	6,293	300.7

MERCER COUNTY—(Mercer No. 3 Association)

H. Forrest Haugh, Tester

A. D. Willaman	Transfer	12.40	R:GrJ	8,919	471.2
Wilhelm Bros.	Sharon	19.01	R:GrG	9,741	460.9
*Mercer County Home	Mercer	34.70	R:GrH	12,845	427.6
W. H. Crawford	Mercer	18.88	GrG:Mix	9,176	380.7
Frank L. Minner	Pulaski	13.55	R:GrJ	7,258	376.4
Mell Reno & Sons	Sharpsville	42.11	GrJ:Mix	7,637	369.7
J. C. Christy	Sharon	16.62	Mixed	8,664	365.9
S. M. McBurney	Sharpsville, R 2	21.70	P:GrH:		
			Mixed	8,943	351.6
A. L. Brainard	Sharpsville	17.85	RH	10,510	350.4
E. S. Reichard & Sons	Transfer	21.33	PJ	6,575	345.7
Seth A. Gaugh	Sharon, R 2	19.23	Mixed	7,967	337.6
Lewis R. Cox	Pulaski	21.82	R:GrG:		
			Mixed	6,629	334.2
B. F. Canon	West Middlesex	24.44	Mixed	8,527	318.9
Harry L. Moore	Sharpsville, R 3	15.13	GrG:Mix	6,146	304.2
J. B. Winner	Sharpsville	27.82	GrH:Mix	8,623	303.5

*Milked three times daily

MIFFLIN COUNTY—(Mifflin Association)

Lester M. Shughart, Tester

David H. Byler	Belleville, R 2	7.58	R:GrH	11,989	441.8
H. H. Bradford	Lewistown, R 1	8.34	RH	12,364	432.5
Amos C. Yoder	Allensville	15.15	R:GrG:J	8,650	429.2
Ezra T. Kauffman	Belleville	8.05	P:GrG:Mix	9,027	403.0
Jacob P. Yoder	Belleville, R 2	8.34	R:GrH:		
			Mixed	10,285	398.0
Samuel C. Mitchell	Lewistown, R 3	14.52	R:GrH	10,388	390.2
*C. Wm. Bonson	Belleville	11.97	R:GrH	11,412	381.4
David J. Yoder	Reedsville	18.93	R:GrJ:Mix	9,370	374.7
Jacob D. Byler	Belleville	15.05	R:GrG:Mix	8,438	374.5
S. M. Yoder	Belleville, R 1	10.86	GrH	9,723	367.9
Willow Brook Dairy	Lewistown, R 1	12.01	R:GrH	10,055	362.4
J. Reed Goss	Reedsville	14.00	GrH	10,473	359.7
*Malta Home Assn.	Granville	19.37	RH	10,515	356.1
David E. Peachy, Jr.	Belleville	16.09	R:GrH:		
			Mix	9,038	332.5
J. Clinton Bonson	Reedsville	9.61	RH	9,631	305.5

*Milked three times daily

**Milked three times daily for 4 months

MONTGOMERY COUNTY—(Montgomery No. 1 Association)

Frank G. Horrocks, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Shipley School Farm	Gladwyne	14.08	R:GrG	9,233	447.7
Spring Dell Farm	Fort Washington	9.06	RG	8,767	429.7
Silver Spring Farm	Norristown, R 4	11.59	R:GrG	8,807	411.3
J. L. Wood & Sons	Pennsburg, RD	18.73	R:GrH	11,472	408.5
Alvin L. Funk	Collegeville, RD	19.17	R:GrG	8,091	396.4
Chas. E. Fetterman	Barto, R 2	19.31	R:GrG:		
			Mix	10,184	395.1
Ursinus College	Collegeville	14.87	RH	10,810	389.0
Wayne Schultz	East Greenville	14.71	RH	10,784	363.3
H. D. Allebach	Trappe	16.79	RH	10,437	358.4
S. C. Burton	Maple Glen	30.32	RG	7,213	356.4
Homer Schultz	Hereford	16.21	RH	9,213	335.7
Walter R. Hibberd, Jr.	Bryn Mawr	16.88	RG	6,943	335.4
Allen S. Kriebel	Hereford	27.33	R:GrH	8,864	332.3
Harvey Murphy	Norristown, R 5	18.94	GrH	8,483	328.1
Mrs. Howard Bieler	East Greenville	18.28	R:GrH:		
			Mix	8,551	323.9
A. L. Bailey	Gladwyn	15.63	RJ	6,174	322.0
Owen Gerhard	Palm	16.30	RH	8,776	320.4
H. L. Baker	Center Square	21.06	RH:GrG	8,601	317.8

MONTGOMERY COUNTY—(Montgomery No. 2 Association)

David H. Magill, Tester

F. E. Dixon	Elkins Park	10.58	RJ	8,002	422.4
*State Hospital	Norristown	98.01	R:GrH	12,115	413.9
*Penshurst Farm	Narberth	80.76	RA	9,861	396.6
*Carson College	Flourtown	11.64	GrH:G	9,492	389.7
*Camp Discharge Farm	Conshohocken	44.49	RG	7,537	369.1
*Treweryn Farm	Spring House	43.18	RA	8,736	337.8
Raymond Kulp	Royersford, R 1	25.72	Mixed	8,276	337.6
Normandy Farms	Norristown, R 3	101.42	RA	8,401	336.1
Chas. E. Dearnley	Norristown, R 2	14.38	Mixed	7,517	332.7
Wm. Pratt, Jr.	Willow Grove	22.51	Mixed	8,407	324.8
Daniel Buckley	Ambler	12.16	Mixed	7,160	308.9
Morris Cheston	Ambler	11.18	RJ	6,021	306.9
*Milked three times daily					

NORTHUMBERLAND COUNTY—(Northumberland-Snyder Association)

John Ginck, Tester

*State Colony	Selinsgrove	34.19	R:GrH	11,583	411.3
Clarence M. Bailey	Beavertown	7.67	GrH	9,909	373.7
Geo. L. Wesner	Watsonstown	14.54	P:GrH	9,916	365.6
Raymond J. Kiefer	Watsonstown	9.88	R:GrG	7,047	351.8
Harry H. Klingler	Beaver Springs	10.40	RH	10,006	350.4
J. Ray Keiser	West Milton	11.19	R:GrG:RH	7,538	344.3
H. J. Masters, Herd N. 1	Sunbury	33.14	R:GrH:		
			Mixed	9,111	332.3
H. J. Masters, Herd N. 2	Sunbury	17.14	R:GrH:		
			Mixed	8,969	328.6
W. C. Gauger	Watsonstown	13.91	RH	9,712	326.6
Earl G. Winey	Middleburg	12.37	RG	6,330	324.1
William L. Vincent	Danville	15.81	GrG	6,784	318.7
Fisher Brothers	Kreamer	18.00	R:GrH	9,356	314.9
Sby. Milk Products Co.	Sunbury	25.64	R:GrG	7,637	310.8
J. A. Phillips	Sunbury	15.72	R:P:GrH	9,431	312.8
*Milked three times daily for three months					

PERRY COUNTY—(Perry Association)

Bruce E. Beaver, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Ward R. Milligan	Loysville	11.85	R:GrH	11,958	381.3
William N. Zimmerman	Blain	9.24	R:GrH	10,833	371.5
George G. Beaver	Millerstown	17.73	RH	9,607	342.1
Roy A. Snyder	Landisburg	16.75	R:GrH	9,886	340.9
Jonathan R. Black	Millerstown	8.52	RH	8,714	315.2
Howard W. Dromgold	New Bloomfield	13.50	R:GrH	9,371	311.6
H. Heisler Shumaker	Landisburg	21.63	R:GrH:		
			Mixed	8,390	303.3

POTTER COUNTY—(Ulysses Association)

Paul J. Gregory, Tester

Lawrence E. Buck	Ulysses	20.59	RH	12,081	418.3
J. K. Martin	Galeton	11.07	RH	11,439	417.3
Chas. Warriner & Sons	Harrison Valley	13.30	RH	11,537	407.9
Ervin Traub	Galeton	9.07	GrH	10,049	378.0
Francis Handwerk	Germania	8.55	R:GrH	10,234	368.0
Edward Kosa	Ulysses	13.68	R:GrH	9,712	366.0
John Bauer	Emporium	22.45	R:GrH	10,647	361.3
L. C. Traub	Galeton	8.91	R:GrH	8,905	352.8
R. H. Leete	Coudersport	31.06	R:GrH	9,582	342.0
G. J. Pfuntner	Coudersport	28.77	R:GrJ	6,813	326.5
C. S. Ladd	Ulysses	12.10	R:GrA	8,478	320.6
R. H. Russell	Coudersport	18.16	RA	7,417	315.2
Harry E. Jones	Shinglehouse	6.61	RH	8,997	314.4
Wesley Carey	Harrison Valley	16.25	R:GrH	8,545	313.6

SCHUYLKILL COUNTY—(Schuylkill Association)

Henry Lindner, Tester

Jonathan Herring	Pine Grove	12.79	RJ	7,544	395.2
J. F. Bast & Sons	Schuylkill Haven	20.15	R:GrH:		
			GrG	10,198	371.3
U. E. Rhein	Pine Grove	10.56	RJ	7,106	371.0
John Dietz	Schuylkill Haven	15.50	R:GrH:		
			Mixed	9,713	370.3
Arthur Heisler	Tamaqua	23.37	R:GrH:		
			Mixed	10,044	368.7
Milton Stump	Pine Grove	12.04	R:GrJ:		
			GrH	7,909	366.9
William Buechley	Pottsville	13.04	RJ	6,797	365.5
Guy S. Reed	Summit Station	17.78	R:GrH:		
			GrG	9,339	361.9
Roy Hunter	Ashland, RD	22.26	P:GrH:		
			Mixed	9,845	353.9
Earl Paxson	Schuylkill Haven	19.95	R:GrH	9,342	328.9
A. T. Riegel	Schuylkill Haven	26.99	RH	9,375	327.5
Webster Wagner	Tamaqua, RD	44.51	R:GrH		
			R:GrG	8,015	320.5
Robert Ludwig	Hegins	24.98	R:GrH:		
			GrG	8,042	314.8
Sch. Co Almshouse	Schuylkill Haven	31.01	R:GrA	7,168	309.9
Mrs. Maud Richards	Pottsville	17.92	R:GrH:		
			GrJ	6,813	307.7
Roy Gauker	Cressona	14.26	GrH	8,721	301.0

SOMERSET COUNTY—(Somerset Association)

William Ditto, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Meyers Brothers	Meyersdale	22.06	R:GrSw	10,496	409.9
Menno Yoder	Meyersdale	30.43	RJ	7,716	400.0
Milton Yoder	Grantsville, Md.	5.67	GrJ	7,589	398.2
Ezra M. Yoder	Grantsville, Md.	14.61	R:GrG: GrJ	6,887	366.3
Alice Brant	Friedens, R 1	20.99	Mixed	8,179	357.3
N. J. Kinsinger	Meyersdale, R 2	19.65	R:GrJ	6,782	350.1
O. W. Beachley	Somerset, R 5	16.43	R:GrH	9,849	345.5
Edward Yoder	Grantsville, Md.	12.99	GrJ	6,703	338.7
*Somerset County Home & Hospital	Somerset	41.65	RH	9,813	335.3

*Part of herd milked three times daily

SULLIVAN COUNTY—(Sullivan Association)

Vernon M. Hatch, Tester

Thomas Doyle	Dushore	10.08	R:GrH	11,537	419.2
B. C. Adams	Colley	8.42	GrG	7,769	405.9
Fred L. Shaffer	Forksville	13.45	GrH	9,692	375.7
Howard Plotts	Forksville	13.16	R:GrG	7,425	356.8
Carl Molyneux	Forksville	15.42	GrH	8,674	332.9
Walter Mulnix	Forksville	8.91	R:GrH	8,593	328.8
Harlan Baumunk	Forksville	16.08	GrH:GrG	8,200	316.5
Lynn Boyles	Forksville	11.51	R:GrH	7,982	314.6

SUSQUEHANNA COUNTY—(Choconut Association)

Elston Carter, Tester

Allen Jayne	W. Auburn	11.90	GrH	9,664	389.9
A. J. Patton	Brackney	18.01	R:GrH	9,726	360.5

SUSQUEHANNA COUNTY—(Gelatt-So. Gibson Association)

B. E. Whitney, Tester

A. L. Howell	Thompson	20.71	RH	12,219	433.6
Cordie Allen	Nicholson	15.01	RH	12,490	433.2
Curtis Allen	Nicholson	13.72	R:GrH: GrG	11,413	416.8
Wilnot Bros.	Jermyn	30.06	R:GrH	9,786	365.1
W. J. Horton	Clifford	22.35	R:GrH	9,815	318.1

SUSQUEHANNA COUNTY—(Western Susquehanna No. 1 Association)

Jim Eagleman, Tester

D. Fred Birchard	Birchardville	16.07	RJ	6,889	372.5
Leslie Fraser	Montrose, RD	21.79	R:GrH	11,145	367.8
Floyd Hibbard	Springville	13.82	R:GrH	11,582	363.9
Fernheim Farm	Montrose	20.02	RA	7,888	349.6
M. K. Bush	Montrose	19.46	RH	10,264	349.3
Ross L. Carter	Rush	25.31	R:GrG	7,272	345.9
S. C. Birchard Son	Birchardville	28.32	RJ	5,948	339.9
S. R. Ellsworth	Meshoppen	16.41	RH	8,665	314.3

SUSQUEHANNA COUNTY—(Western Susquehanna No. 2 Association)

Carlton Ferris, Tester

Theron Cooley	Nicholson	21.79	R:GrH	10,184	350.0
F. R. Cope	Dimock	19.99	RH	10,240	346.7
G. C. Comstock	Montrose	22.14	R:GrH	6,748	333.4
Lancer McMicken	Skinners Eddy	15.67	RJ:R:GrH	7,492	324.7
Ray Walworth	New Milfors	27.21	RH	8,598	301.1

TIOGA COUNTY—(Cowanesque Valley Association)

Donald Reinsel, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
A. G. Bower	Nelson	18.56	GrH:GrG	9,269	364.1
N. F. Hunt	Westfield	23.57	R:GrH	10,257	363.4
Henry Doan	Knoxville	18.54	GrH	10,305	359.0
Earl Holmes	Westfield	17.83	RH	10,479	356.1
U. O. King & Son	Knoxville	23.95	R:G:Mix	7,604	352.7
L. G. Hunt	Westfield	17.13	R:GrH	9,697	349.0
F. M. Kohler	Elkland	11.74	GrH	9,138	344.3
D. R. Butler	Knoxville	11.81	RG	6,743	332.4
H. A. Decker & M. D. Pride	Westfield	34.79	RH	9,477	326.7
H. B. Matteson	Knoxville	9.77	RA:Mix	8,186	324.0
V. W. Baker	Westfield	17.89	RH:Mix	8,291	321.2
J. H. Pepper	Nelson	16.13	R:GrH	8,601	318.7
J. F. Hegman	Westfield	20.57	R:GrH	8,115	310.9
A. W. Hunt & Bert Rodee	Westfield	18.68	RH:GrJ	8,960	309.6
E. J. Peters	Osceola	9.28	RJ:Mix	6,916	308.2
J. F. Hegman	Westfield	17.18	GrH	8,410	307.1
W. A. Farnsworth & Son	Knoxville	10.10	RH:RG	6,991	304.2

TIOGA COUNTY—(Jackson Association)

Ward McConnell, Tester

Dan Bly	Pine City, N. Y.	9.41	RJ	7,414	397.9
E. N. Garrison	Millerton	14.20	RJ	6,924	393.4
*John P. Kasper	Pine City, N. Y.	31.50	R:GrH: GrJ	9,798	356.1
Frank Bly	Pine City, N. Y.	19.37	RJ	6,405	354.6
Ford Cady	Pine City, N. Y.	23.02	RH:Mix	9,192	349.2
Victor H. Hurd	Millerton	15.90	R:GrG: GrH	8,005	348.9
W. A. Segar	Rutland	13.93	R:GrG: R:GrH	9,280	345.4
L. R. Stevens	Millerton	23.99	RH	10,078	344.3
Earl Wheeler	Pine City, N. Y.	26.90	R:GrJ	6,762	344.1
R. L. Bement	Lawrenceville	13.14	R:GrG	7,019	340.8
W. E. Garrison	Millerton	24.27	RG	6,768	331.1
**A. D. Prutsman	Millerton	29.03	RH	9,333	327.0
Ford C. Smith	Millerton	17.32	R:GrJ	6,200	323.4
A. G. Miller	Pine City, N. Y.	25.91	R:GrH: GrJ	8,388	315.9
E. B. Spencer & Son	Millerton	24.14	RH	9,324	313.7
Fred F. Tillinghast	Gillett	18.60	RJ	6,228	309.3
William Hill	Pine City, N. Y.	17.42	GrJ	6,321	303.1

*Milked three times daily for 7 months

**Milked three times daily for 6 months

TIOGA COUNTY—(Liberty Association)

Grant Roupp, Jr., Tester

Chancey Brion	Liberty	12.13	R:GrH	11,659	405.1
Dan Bonnell	Liberty	13.95	R:GrJ	7,622	396.4
Albert Norman	Liberty	15.46	RJ	7,061	383.3
Wilbur Brion	Liberty	9.42	GrH	9,091	366.6
Ed. W. Brion	Liberty	11.61	RJ:GrH	7,383	340.8
Marshall Bros.	Roaring Branch	21.50	Mixed	7,934	331.0
Gordon Parker	Liberty	19.28	GrJ:RH	8,756	302.3

TIOGA COUNTY—(Mansfield Association)

Richard C. Knowlton, Tester

*East Brook Farm	Covington	13.05	RH	13,708	472.2
Ernest Bolt	Covington	20.36	R:GrH	10,801	396.8
F. O. Purvis	Mansfield	24.67	GrH	9,212	346.9
Dan Jaquish	Covington	21.04	GrH	9,157	317.5
Ralph H. Benson	Mansfield	29.47	GrH	8,132	313.3

*Milked three times daily for 7 months

TIOGA COUNTY—(Wellsboro Association)

George Thompson, Tester

*Roy S. Bowen	Wellsboro	12.35	RH	13,321	470.4
George B. Butler	Wellsboro	13.58	R:GrG	8,603	414.7
**Clark Bowen	Wellsboro	14.07	RH	10,344	372.2
Joe & Harry Davis	Little Marsh	22.59	P:GrH	10,744	366.5
Angie Bailey	Middlebury Ctr.	14.00	P:GrG	7,301	330.8
William E. Hammond	Wellsboro	8.24	Mixed	7,155	318.1
William A. Davis	Tioga	15.47	RG:GrH	8,549	315.7
Leon Manning	Tioga	16.45	GrH	9,005	313.3
County Farm	Wellsboro	25.90	RA	8,012	306.8
L. F. Jessup	Crooked Creek	8.76	Mixed	8,865	303.5

*Milked three times daily

**Milked three times daily for 4 months

UNION COUNTY—(Buffalo Valley No. 1 Association)

Floyd L. Cole and Ellsworth Noble, Testers

*A. C. Slifer	Lewisburg	10.25	RH	13,466	467.0
H. K. Benner	Vicksburg	9.36	RH	12,960	442.4
R. J. Smith	Millmont	9.59	RH	12,399	422.8
Oscar Brouse	Mifflinburg	6.67	RSw	10,179	422.2
C. E. Erdley	Lewisburg	26.51	RH	12,089	396.0
**Laurelton S. Village	Laurelton	40.61	GrH	11,547	395.8
W. J. Erdley	Mifflinburg	11.33	RH	11,164	381.6
J. S. Zeigler	Lewisburg	22.66	RH	10,476	364.0
Calvin Stahl Est.	Lewisburg	8.98	RH	10,740	361.1
H. A. Walter	Lewisburg	15.07	RH	10,675	357.1
Cole & Shoemaker	Vicksburg	11.67	R:GrH:		
			GrG	9,199	343.3
J. D. Shreck	Lewisburg	14.78	R:GrH	9,784	331.4
David E. Voneida	Lewisburg	12.65	RSw	8,762	331.0
R. E. Musser	Lewisburg	17.42	RH	10,190	316.1

*Milked three times daily

**Part of herd milked three times daily

VENANGO COUNTY—(Venango Association)

John E. Baker, Tester

*Polk State School	Polk	150.03	RH	13,036	454.7
J. D. Jack	Emlenton, R 2	7.03	R:GrG	7,843	418.1
E. W. Shaffer	Titusville, R 5	11.21	RG:GrJ	8,001	414.1
Venango Co. Home	Franklin, R 5	11.14	RH	11,352	377.4
D. H. Morrison	Van, R 1	10.51	R:GrG	7,263	351.5
R. W. Strwbridge	Diamond, R 2	6.33	RJ	6,318	328.7
E. B. Gehring	Titusville, R 4	7.99	Mixed	6,406	323.2
Porter & Bearce	Diamond, R 1	8.99	R:GrG:		
			Mixed	6,646	312.6

*Milked three times daily

WARREN COUNTY—(Warren Association)

Wendell Bauer, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
King Brothers	Akeley	5.66	RH	12,886	442.8
*Warren State Hospital	Warren	124.30	R:GrH	12,447	405.4
Mrs. A. J. Leofsky	Spring Creek	12.44	GrH	10,229	365.4
Rouse Hospital	Youngsville, R 3	31.25	R:GrH	10,157	343.2
F. R. Lounsbury	Russell	9.00	R:GrG	5,744	303.4

*Milked three times daily

WASHINGTON COUNTY—(Washington Association)

Robert Mayhew, Tester

Alex Hamilton & Son	Washington, R 7	15.33	R:GrG	8,806	446.7
*Penna. Training School	Morganza	36.90	RH:J	12,212	416.9
V. C. McCracken	Charleroi	15.65	P:GrJ	7,432	401.0
G. A. McWreath	McDonald	16.32	R:PH	12,582	395.2
P. F. Morris	Charleroi	13.39	R:PJ	7,502	376.3
Houk Bros	Monongahela	25.13	R:GrG:		
			GrH	8,460	364.9
M. Reed Welch	Burgettstown	12.49	R:GrH	11,024	364.4
J. A. Dinsmore	Washington	25.13	R:PJ	6,850	362.7
Robt. Hamilton	Washington	12.97	GrG:H	7,754	362.6
Lawrence McIlvaine	Bentleyville	13.56	RG	7,310	359.6
J. Ard Cowden	McDonald	26.08	R:GrH:		
			GrG	9,154	340.2
N. E. Plance	Burgettstown	19.93	RH	9,892	334.2
Irwin Bros.	Monongahela	24.35	RG	6,609	321.2
S. J. T. Hough	Washington	12.69	RSw	7,097	300.1

*Milked three times daily.

WAYNE COUNTY—(Clinton Association)

Walter Haldeman, Tester

Fairview State Hospital	Waymart	24.13	R:GrH	13,493	443.0
Geo. W. Roesner	Aldenville	12.29	R:GrJ	7,581	401.1
*Bethany Homestead					
Farms	Honesdale	62.84	RG	7,692	393.5
Stephen Snedeker	Waymart, R 1	24.91	R:GrJ	7,200	383.7
Henry A. Robinson	Seelyville	10.02	RJ	6,642	378.3
C. L. Drake	Waymart	39.93	R:GrH:G	9,141	377.3
Russell G. Erk	Prompton	40.29	RJ:R:GrH	6,949	340.4
W. L. Hauenstein	Waymart, R 1	21.06	RJ	6,897	338.7
Lloyd Douglas	Honesdale	30.44	P:GrH:		
			Mix	9,270	337.4
Edward Erk	Seelyville	26.27	RJ	6,270	334.5
B. F. Kennedy	Pleasant Mount	29.16	GrH	9,986	331.5
Hutchinson Brothers	Honesdale, R 1	16.68	GrG:Mix	6,840	309.9

*Milked three times daily

WAYNE COUNTY—(Damascus Association)

Theron L. Johnson, Seeley F. Ferris, Testers

*C. E. Canfield	Damascus	15.95	R:GrH	12,448	434.7
Warner Robbins	Beach Lake	16.45	RH	10,878	382.4
Clarence Noble	Milanville	16.78	R:GrH	11,087	381.5
*Walter Blum	Milanville	19.98	R:GrH	10,962	377.5
*F. Emmett Olver	Honesdale	32.92	R:GrH	10,367	358.8
T. H. Olver	Honesdale	21.23	R:GrH	8,772	309.3

*Milked three times daily

WAYNE COUNTY—(Lake Ariel Association)

Seeley Ferris, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
John Simpson	Lake Ariel	18.04	RH:GrG	11,699	457.4
Dwight Chapman	Moscow	17.56	R:GrH	10,445	373.8
D. L. McKinney	Lake Ariel	15.33	R:GrG	7,956	350.2
Stanley Caruth	Moscow	14.79	GrH	9,166	323.2
John Cobb	Lake Ariel	21.17	GrG	6,388	304.3
Marvin Enslin	Waymart	19.54	R:GrJ: GrH	7,134	300.5
Arden Edwards	Lake Ariel	16.15	RJ	5,680	300.0

WAYNE COUNTY—(Preston Association)

Clarence Walker, Tester

Robert Early	Deposit. N. Y.	19.14	R:GrH	9,442	330.5
E. J. Howell	Lakewood	13.88	R:GrH	8,857	329.3
H. E. Woodmansee	Starlight	29.75	R:GrH	9,337	324.9
Alton Neild	Preston Park	22.50	R:GrH	9,216	309.2
Robert Arnold	Starrucca	21.13	GrH	8,475	302.0

WESTMORELAND COUNTY—(Westmoreland No. 1 Association)

Norman C. Farlow, W. Wilson Martz, Testers

*Joseph Kim	Larimer	13.06	R:GrG: Mix	11,244	422.9
F. M. Kintigh	Irwin, R 2	11.60	R:GrG: Mix	9,447	388.9
**I. C. Wohlwend	Salina	10.17	RSw	9,033	383.6
R. P. McClelland	Wayne	11.50	Mixed	9,623	370.7
J. M. & C. A. Lemon	Saltsburg, R 2	21.86	P:GrH:RG	9,348	359.9
John Moffat	New Alexandria	16.47	R:GrG	8,026	359.7
Walter Lash	West Newton, R 1	11.93	RG	8,337	347.6
John A. Waddle	Saltsburg, R 2	14.33	R:GrH	10,036	346.3
R. C. Lemon & Son	Saltsburg	11.07	R:GrH	10,400	341.8
St. Vincent Archabbey	Latrobe	62.44	R:GrH	9,590	321.5
J. C. Gaut	Alverton	18.39	R:GrH	9,298	315.7
J. H. Seanor	New Alexandria	24.16	R:GrH	9,179	315.5
Paul A. Hugus	Latrobe, R 3	19.80	PJ:PH: Mixed	7,215	307.2

*Part of herd milked three times daily for seven months.

**Part of herd milked three times daily for three months.

WESTMORELAND COUNTY—(Westmoreland No. 2 Association)

Ralph W. Albright, Tester

*Westmoreland County Home	Greensburg	19.70	RH	13,533	474.6
J. C. Gongaware	Greensburg, R 2	20.24	R:GrG: Mixed	8,917	383.5
John S. & Wm. A Stoneman	West Newton, R 2	8.30	R:GrG	7,543	360.2
J. Calvin Turner	Pricedale	15.83	R:GrH:R: GrG	8,954	338.9
S. W. Heath	Belle Vernon	17.87	R:GrG	6,998	334.6
F. G. Summy	Mt. Pleasant, R 1	17.10	R:GrH	9,495	326.6
F. H. Kemp	Greensburg, R 4	15.92	GrH:Mix	8,049	322.3
J. E. Wineman	Youngwood	16.41	R:GrH: Mixed	9,106	315.3

*Milked three times daily

WYOMING COUNTY—(Mehoopany Association)

Donald Hindman, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Alfred Hallock	Laceyville	11.96	RH	11,718	408.5
R. C. Erhardt	Dalton, R 2	5.32	R:G H:GrJ	10,424	383.0
Herbert Hunter	Falls	15.07	R:GrH	10,305	370.5
Howard Brunges	Tunkhannock	43.69	R:GrJ	7,245	369.0
Edward Prevost	Tunkhannock	18.36	RH	10,348	360.7
Vaugh Bros., Herd No. 2	Mehoopany	20.08	RH	10,006	354.1
Furman Bros.	Mehoopany	24.17	R:GrH: GrG	9,771	352.2
C. W. Henning	Mehoopany	16.18	RH	9,826	327.4

YORK COUNTY—(Northern York Association)

Wm. F. Schaefer, Jr., Tester

J. J. Hamme	Abbotstown	16.51	RG	7,711	386.9
John S. Brandt	Dallastown	21.91	R:GrG	8,284	386.4
Wm. F. Dummer	Mt. Wolf	17.75	GrH:GrG	10,424	385.8
J. A. Poorbaugh	York, R 3	38.12	R:GrG	8,032	382.6
Geo. W. Bacon (Farm No. 1)	York, R 4	34.70	R:GrG	7,761	372.3
David Bahn	York, R 3	13.83	Mixed	10,185	369.9
H. M. & M. B. Emig	Hellam	27.90	R:GrJ:R: GrH	9,037	359.1
Frank L. Krall & Son	East Berlin	27.35	RH	9,866	355.3
C. Allen May	York, R 5	25.75	R:GrG	7,481	350.2
Haines Acres	York, R 7	19.05	R:GrH:R: GrG	9,096	345.4
Geo. W. Bacon (Farm No. 2)	York, R 4	17.27	GrG	7,438	340.3
J. E. Baker	York	22.43	R:GrJ	6,985	339.7
Chas. A. Schaefer	York	13.48	RG	6,634	339.7
D. D. Hoover	Mt. Wolf	6.96	RH	10,679	334.7
J. Raymond Arnold	Hellam	50.60	GrG	7,154	322.6
E. E. Eichelberger	Lewisberry	11.87	R:GrH	8,862	321.5
Mrs. S. F. Raab & Son	Dallastown	14.03	R:GrH	9,492	315.6
E. S. Gross	Manchester	36.05	R:GrH:G	6,763	315.6

YORK COUNTY—(Southern York Association)

Robert M. Scott, Tester

*Lauxmont Farms (S. Forry Laucks)	Wrightsville	63.35	RH	12,500	452.5
W. M. Carico	Delta	21.11	GrG:GrH	9,625	417.7
Dale D. Kilgore	Woodbine	11.48	R:GrG	7,768	377.7
H. G. Hall	Stewartstown	20.74	R:GrG: GrH	9,594	371.5
Stiles & Lentz	Seven Valleys	9.78	RG	7,211	366.0
J. B. Fishel	York	38.42	RA	8,825	361.2
W. A. Gross	York, R 1	11.12	R:GrG	7,809	358.2
H. J. Handley	Delta	17.95	RSw:Mix	8,683	356.5
W. S. Grimm	Red Lion	53.43	RH	9,862	354.3
W. Richardson & Son	Whiteford, Md.	15.59	GrG:GrH	8,180	353.8
Wm. J. Parlett	Woodbine	8.65	Mixed	7,574	337.4
Emory M. Kilgore	Woodbine	12.83	R:GrG	6,304	305.8

*Milked three times daily

LIST OF MEMBERS WHO PAID THEIR DUES IN 1935

The Association will appreciate notification of any errors
in this list.

ADAMS COUNTY—(3 MEMBERS)

Bream, John C. Gettysburg, Pa.
Brown, Harry E. Fairfield, Pa.
Motter, Geo. E. R. D. 2, Littlestown, Pa.

ALLEGHENY COUNTY—(11 MEMBERS)

Bell, John A., Jr. Oliver Bldg., Pittsburgh, Pa.
Craig, Albert B. Sewickley, Pa.
Fisher, S. G. 451 Century Bldg., Pittsburgh, Pa.
Koenig, H. R. R. D. 1, Box 138, Tarentum, Pa.
Martin, Alex. 13112 Mt. Royal Blvd., Etna, Pittsburgh, Pa.
Mowry, C. E. Willuck, Pa.
Reed, J. J. 26 N. Euclid Ave., Bellevue, Pittsburgh, Pa.
Rice, Gordon J. R. D. 2, Coraopolis, Pa.
Smith, Wm. A. Pittsburgh Steel & Foundry Co., Pittsburgh, Pa.
Stark, L. M. Century Bldg., Pittsburgh, Pa.
Taylor, Geo. A. 4th Floor, Century Bldg., Pittsburgh, Pa.

ARMSTRONG COUNTY—(1 MEMBER)

Smitz, M. A. Nu Mine, Pa.

BEAVER COUNTY—(NO MEMBERS)

BEDFORD COUNTY—(4 MEMBERS)

Baker, Frances (Mrs.) Everett, Pa.
Coxe, Fred W. Everett, Pa.
Donaldson, Thos. H. Yellow Creek, Pa.
Hoy, McKinley R. 5, Everett, Pa.
Mollenauer, L. R. Bedford, Pa.

BERKS COUNTY—(7 MEMBERS)

Archer, Caroline Flying Hill Farm, Reading, Pa.
Balthaser, Mark S. Bernville, Pa.
Cullum, Allan M. Riveredge Farms, Reading, Pa.
Harvey, B. D. Douglassville, Pa.
Leinbach, H. M. Douglassville, Pa.
Ritzman, Charles W. R. 3, Sinking Spring, Pa.
Schaum, Lyman G. Womelsdorf, Pa.

BLAIR COUNTY—(14 MEMBERS)

Bagshaw, Cloyd Hollidaysburg, Pa.
Bagshaw, Kenzie S. R. 2, Hollidaysburg, Pa.
Bagshaw, M. C. R. D. 2, Hollidaysburg, Pa.
Blair County Home Hollidaysburg, Pa.
Burket, John W. & Son R. D. 1, Tyrone, Pa.
Delozier, J. M. R. 2, Hollidaysburg, Pa.
Havens, O. S. Williamsburg, Pa.
Hileman, Thurman Hollidaysburg, Pa.
Kendall, Albert W. Box 201, Duncansville, Pa.
Long, Alva R. R. D., Portage, Pa.
Morrow, D. A. Tyrone, Pa.
Perry, R. J. c/o Blair County Home, Hollidaysburg, Pa.
Smith, Preston C. R. D., Martinsburg, Pa.
Tussey, R. I. Hollidaysburg, Pa.

BRADFORD COUNTY—(23 MEMBERS)

Arnold, Raymond B. Milan, Pa.
Ballard, Ben R. 3, Troy, Pa.
Bennett, M. V. Laceyville, Pa.
Brackman, John L. Canton, Pa.
Burlington, Arthur Wyalusing, Pa.

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Campbell, Fred	Wyalusing, Pa.
Chaffee, C. S.	Ulster, Pa.
Culver, C. B.	Laceyville, Pa.
Dorr, Paul F.	Ulster, Pa.
Erway, Clifton	Canton, Pa.
Gray, Frank	Laceyville, Pa.
Griggs, C. J.	Monroeton, Pa.
Harris, L. A.	Milan, Pa.
Isaacs, Philip	Canton, Pa.
McCarty, Taylor	Sugar Run, Pa.
Pruyne, Wm. L.	Milan, Pa.
Spencer, Clarence	Canton, Pa.
Thurston, Harry G.	Athens, Pa.
Watts, T. M.	Canton, Pa.
White, W. W.	Snedekerville, Pa.
Whitney, B. E.	905 Main St., Towanda, Pa.
Wolfradt, H. G.	Athens, Pa.
Young, Damon	Milan, Pa.

BUCKS COUNTY—(13 MEMBERS)

Canby, Joseph O.	Hulmeville, Pa.
Diehl, D. Horace	Pipersville, Pa.
Dietrich, C. G.	Bristol, Pa.
Gockman, Harvey K.	R. D. 1, Chalfont, Pa.
Hunsberger, Willis	Plumsteadville, Pa.
Myers, Claude	Plumsteadville, Pa.
Satterthwaite, Lewis P.	Newtown, Pa.
Smith, James Iden	New Hope, Pa.
Smith, Philip W.	New Hope, Pa.
Stewart, E. F.	Colmar, Pa.
Thompson, J. C.	Farm School, Pa.
Twining, Wilmer A.	Wycomb, Pa.
Whitman, Earl	Dublin, Pa.

BUTLER COUNTY—(3 MEMBERS)

Campbell, J. S.	Clearview Farm, Butler, Pa.
Fergus, Hugh	Slippery Rock, Pa.
Hock, Geo. J.	Harmony, Pa.

CAMBRIA COUNTY—(1 MEMBER)

Webster Griffith Estate	Ebensburg, Pa.
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CAMERON COUNTY—(1 MEMBER)

Bauer, John	Emporium, Pa.
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CARBON COUNTY—(2 MEMBERS)

Behrens, F. C. & Sons	E. Mauch Chunk, Pa.
Zimmerman, Lewis A.	Lehighton, Pa.

CENTRE COUNTY—(15 MEMBERS)

Borland, A. A.	State College, Pa.
Confer, Harry E.	Howard, Pa.
Duff, W. O.	State College, Pa.
Fitts, E. B.	State College, Pa.
Gearhart, C. R.	State College, Pa.
Jones, P. D.	State College, Pa.
Mayes, J. Will	Howard, Pa.
Nageotte, Joe	State College, Pa.
Olmstead, R. H.	State College, Pa.
Parkin, Ivan E.	State College, Pa.
Peters Bros.	Port Matilda, Pa.
Sidemann, I. O.	State College, Pa.
Swope, W. D.	State College, Pa.
Weight, Geo.	R. D., Bellefonte, Pa.
Whiteman, Ira	Oak Hall Station, Pa.

CHESTER COUNTY—(10 MEMBERS)

Allinson, Page	R. D., West Chester, Pa.
Brinton, Robert F.	West Chester, Pa.
Keen, Frank A.	West Chester, Pa.
Knollin, Eugene S.	Berwyn, Pa.
Pate, Harry M.	Kennett Square, Pa.
Phillips, M. T.	Pomeroy, Pa.
Reed, Clark H.	Edgeview Farm, West Chester, Pa.
Reeves, Wm. I.	R. D., West Chester, Pa.
Tabscott, S. W.	Glen Moore, Pa.
William, Ray L.	New Centerville, Pa.

CLARION COUNTY—(12 MEMBERS)

Burnham, R. M.	Corsica, Pa.
Burnham, R. M.	Strattonville, Pa.
Cole, George	Clarion, Pa.
Craig, H. C.	Curllsville, Pa.
Frampton, E. C.	Sligo, Pa.
Gruber, J. P.	Shippensburg, Pa.
Hartman, J. W. & Son	Sligo, Pa.
King, J. P. C.	Summerville, Pa.
Lechner, Arnold	Remersburg, Pa.
Miller, F. K.	Clarion, Pa.
Shook, Ray H.	Sligo, Pa.
Taylor, William E.	Parkers Landing, Pa.

CLEARFIELD COUNTY—(7 MEMBERS)

Harley, Robert S.	R. 1, Morrisdale, Pa.
Leitzinger, W. A. E.	Clearfield, Pa.
Mattern, C. O.	Osceola Mills, Pa.

McKeage, John A.	Mahaffey, Pa.
Mitchell, W. O.	Clearfield, Pa.
Smith, Alvin G.	Clearfield, Pa.
Zemka, S. J.	R. 2, Clearfield, Pa.

CLINTON COUNTY—(10 MEMBERS)

Confer, W. Leonard	McElhattan, Pa.
Dunlap, Leroy	Beech Creek, Pa.
Hayes, Hugh C.	Mackeyville, Pa.
Homestead Dairy	Mill Hall, Pa.
Knecht, H. L.	R. D. 1, Mill Hall, Pa.
Kryder, T. C.	Mill Hall, Pa.
McCool, J. B.	Lock Haven, Pa.
McGill, L. R.	Salona, Pa.
Myers, A. C.	McElhattan, Pa.
Smith, C. C.	Jersey Shore, Pa.

COLUMBIA COUNTY—(4 MEMBERS)

Cole, Ray M.	Bloomsburg, Pa.
Fairchild, W. J. & Sons	Berwick, Pa.
Hack, G. W.	Berwick, Pa.
Niesley, P. G.	Bloomsburg, Pa.

CRAWFORD COUNTY—(9 MEMBERS)

Bauer, Wendell	Meadville, Pa.
Kelly, James M.	Kelly Hill Farm, Titusville, Pa.
Noel, Nova	Guys Mills, Pa.
Paux, Joseph	R. 2, Guys Mills, Pa.
Reitze, Wesley	Meadville, Pa.
Riverside Stock Farm (W. A. Baird)	Cambridge Springs, Pa.
Shoemaker, Luther	Meadville, Pa.
Willard, Karl	Saegertown, Pa.
Wise, W. S.	Meadville, Pa.

CUMBERLAND COUNTY—(11 MEMBERS)

Basehore, Mark R.	Mechanicsburg, Pa.
Horner, John M.	250 Conway St., Carlisle, Pa.
Kurtz, Jessie	Carlisle, Pa.
Loy, Guy L.	Newville, Pa.
McCullough, H. K.	Newville, Pa.
Niesley, Cyrus G.	R. D. 1, Mechanicsburg, Pa.
Otto, I. V.	Carlisle, Pa.
Raudabaugh, A. A.	Carlisle, Pa.
Shughart, J. Paul	Box 96, Allen, Pa.
Strong, John I.	Mechanicsburg, Pa.
Weber, S. V.	Mechanicsburg, Pa.

DAUPHIN COUNTY—(24 MEMBERS)

Barnes, M. F.	140 Walnut St., Lemoyne, Pa.
Bowman, Raymond R.	R. D. 1, Dauphin, Pa.
Bucher, Warren	Municipal Bldg., Harrisburg, Pa.
Cassel, C. E.	R. 1, Hershey, Pa.
Dauphin County Home	R. D. 2, Harrisburg, Pa.
Erb, E. S. & Co.	Middletown, Pa.
Erdman, A. H.	Elizabethville, Pa.
Erdman, Earl E.	Elizabethville, Pa.
Frommeyer, A. S.	Municipal Bldg., Harrisburg, Pa.
Harrisburg State Hospital	Harrisburg, Pa.
Hershey Estates	Hershey, Pa.
Huff, Ivan	Box 366, Progress, Pa.
Miller, David I.	1839 N. 6th St., Harrisburg, Pa.
Munce, T. E.	Harrisburg, Pa.
Odd Fellows Home of Penna.	Middletown, Pa.
Rasmussen & Cater	Hummelstown, Pa.
Reidy, J. B.	Box 610, Harrisburg, Pa.
Rice, P. B.	Harrisburg, Pa.
Schumaker, Ray	Harrisburg, Pa.
Speice, Howard	Dauphin, Pa.
Weiss, Benj. A.	Lykens, Pa.
White, S. A.	1706 N. 2nd St., Harrisburg, Pa.
Wightman P, H.	Dauphin, Pa.
Williams, Samuel B., Jr.	Highspire, Pa.

DELAWARE COUNTY—(2 MEMBERS)

Fetterman, J. Gordon	Media, Pa.
Landsburg, Kenneth G.	122 Penna. Ave., Prospect Park, Pa.

ELK COUNTY—(2 MEMBERS)

Grotzinger, E. J.	St. Mary's, Pa.
Larson, A. & Son	Box 128, Ridgway, Pa.

ERIE COUNTY—(3 MEMBERS)

Marsh, H. H.	Waterford, Pa.
Patton, T. H.	Court House, Erie, Pa.
Stuntz, H. E.	Girard, Pa.

FAYETTE COUNTY—(2 MEMBERS)

Gans, H. M.	Gans, Pa.
Shaffer, J. B. & H. L.	Connellsville, Pa.

FOREST COUNTY—(NO MEMBERS)

FRANKLIN COUNTY—(8 MEMBERS)

Aughinbaugh, J. W.	Mercersburg, Pa.
Barkdoll, Wilbur F.	Mont Alto, Pa.
Dunning, E. C.	622 Montgomery Ave., Chambersburg, Pa.
Fries, Geo. W.	S. 4th St., Chambersburg, Pa.
Hoffeditz, J. W.	Mercersburg, Pa.
Miller, R. G.	218 S. Main St., Chambersburg, Pa.
Wetty, B. H.	Waynesboro, Pa.
Wilson Sisters	Metal, Pa.

FULTON COUNTY—(NO MEMBERS)

GREENE COUNTY—(NO MEMBERS)

HUNTINGDON COUNTY—(3 MEMBERS)

Eberle, A. C.	R. D., Petersburg, Pa.
Grazier, H. E.	Warrior's Mark, Pa.
Mattern, F. H.	R. D., Alexandria, Pa.

INDIANA COUNTY—(12 MEMBERS)

Ginter, Frank	Commodore, Pa.
Houck, Clyde	R. 1, Clymer, Pa.
Johnston, Carl	Court House, Indiana, Pa.
Marshall, F. A. (Dr.)	Indiana, Pa.
Marshall, R. D.	Beyer, Pa.
Pollock, Clark C.	Marion Center, Pa.
Rice, E. G.	Dixonville, Pa.
Simpson, Walter C.	Marion Center, Pa.
Speedy, I. M.	Livermore, Pa.
Warner, John W.	Indiana, Pa.
White, J. H.	Indiana, Pa.
Wynkoop, E. D.	Home, Pa.

JEFFERSON COUNTY—(2 MEMBERS)

Mohney, J. C.	Punxsutawney, Pa.
Winslow, J. P.	Brookville, Pa.

JUNIATA COUNTY—(1 MEMBER)

Stitt, M. L.	Spruce Hill, Pa.
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LACKAWANNA COUNTY—(6 MEMBERS)

Hindman, Donald W.	Waverly, Pa.
Northup, H. J.	Dalton, Pa.
Parker, Walter G.	Clark's Summit, Pa.
Reynolds, T. H.	Moscow, Pa.

Russ, G. D.	Scranton, Pa.
Stone, Edward S.	Waverly, Pa.

LANCASTER COUNTY—(13 MEMBERS)

Brubaker, M. V.	R. D. 2, New Holland, Pa.
Brendle, I. W.	R. D., East Earl, Pa.
Cowan, Chas, E.	927 E. King St., Lancaster, Pa.
Hartz, Ira	Elverson, Pa.
Hastings, J. T. & Sons	Kirkwood, Pa.
Horst, Jacob S.	R. D. 3, Lititz, Pa.
Martin, Ivan G.	Ephrata, Pa.
Martin, Luke W.	Goodville, Pa.
Masonic Homes, (Thad G. Helm, Supt.)	Elizabethtown, Pa.
Metzler, H. R.	R. D., Paradise, Pa.
Sander, Geo. G.	R. D., East Earl, Pa.
Snavely, H. H.	Willow Street, Lancaster, Pa.
Styer, John A.	R. D., East Earl, Pa.

LAWRENCE COUNTY—(NO MEMBERS)

LEBANON COUNTY—(12 MEMBERS)

Anspach, Harry C.	Jonestown, Pa.
Bennetch, J. H.	Sheridan, Pa.
Berger, A. C.	Lebanon, Pa.
Brubaker, Ammon G.	R. 2, Meyerstown, Pa.
Forney, Harry S.	Palmyra, Pa.
Gingrich, C. C.	Lawn, Pa.
Heilman, F. & Son	Cleona, Pa.
Houser, Warren H.	R. D. 4, Lebanon, Pa.
Kreider, A. R.	Cornwall, Pa.
Scott, Joseph H.	R. 6, Lebanon, Pa.
Smith, Jacob N.	R. 1, Annville, Pa.
Westenberger, C. W.	Cornwall, Pa.

LEHIGH COUNTY—(3 MEMBERS)

Drayer, M. A.	State Hospital, Allentown, Pa.
Renninger, Roy	R. 2, Coopersburg, Pa.
Rupp, Wm. H.	R. 2, Breinigsville, Pa.

LUZERNE COUNTY—(3 MEMBERS)

Andrews, Harold	Stillwater, Pa.
Hayman, F. F.	Stillwater, Pa.
Moore, C. H.	Dallas, Pa.

LYCOMING COUNTY—(5 MEMBERS)

Camerer, W. R.	Jersey Shore, Pa.
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Downs, W. R. Jershey Shore, Pa.
 Love, Alva R. Box 487, Williamsport, Pa.
 Nicholson, J. S. R. D. 4, Muncy, Pa.
 Snyder, H. A. Montoursville, Pa.

McKEAN COUNTY—(2 MEMBERS)

Gustafson Bros. R. D. 1, Box 88, Kane, Pa.
 Ross, W. A. Smethport, Pa.

MERCER COUNTY—(14 MEMBERS)

Amon, C. L. R. D. 2, Stoneboro, Pa.
 Campbell, Leroy R. 3, Grove City, Pa.
 Canon, B. F. W. Middlesex, Pa.
 Cummings, L. M. Mercer, Pa.
 Greenville Dairy Co. Greenville, Pa.
 Hazlett, W. J. Grove City, Pa.
 Henderson, R. C. Stoneboro, Pa.
 Keller, Donald S. 156 Edgewood Ave., Grove City, Pa.
 Mercer Sanitarium Mercer, Pa.
 Reynolds, J. H. R. 1, Grove City, Pa.
 Runkel, Marshall W. Mercer, Pa.
 Waha, Harold Mercer, Pa.
 Wilhelm Bros. R. D. 2, Sharon, Pa.
 Winner, Harold W. R. F. D., Sharpsville, Pa.

MIFFLIN COUNTY—(NO MEMBERS)

MONROE COUNTY—(2 MEMBERS)

Dunn, James Scotia, Pa.
 Flory, W. B. 81 N. Courtland St., E. Stroudsburg, Pa.

MONTGOMERY COUNTY—(11 MEMBERS)

Allebach, H. D. Trappe, Pa.
 Allebach, Harold T. Collegeville, Pa.
 Baker, Howard L. Centre Square, Pa.
 Bechtel, E. P. Trappe, Pa.
 Deubler, E. S. (Dr.) Narberth, Pa.
 Klauder, George C. Valley Wood Farm, Penllyn, Pa.
 Landis, W. H. R. 1, East Greenville, Pa.
 Sellers, Elias R. 3, Norristown, Pa.
 Simpson, G. C. Centre Square, Pa.
 Waltz, R. G. Norristown, Pa.
 Woods, J. L. Pennsburg, Pa.

MONTGOMERY COUNTY—(2 MEMBERS)

Leignow, G. M. Danville, Pa.
 Stephens, A. Woodward Mooresburg, Pa.

NORTHAMPTON COUNTY—(13 MEMBERS)

Coleman, B. L. Court House, Easton, Pa.
 Handwerk, Victor R. 1, Walnutport, Pa.
 Houston, V. A. Northampton, Pa.
 Kemmerer, Claude E. R. 1, Bethlehem, Pa.
 King, Harry Nazareth, Pa.
 Lynn, Fred R. 4, Allentown, Pa.
 Masters, H. J. R. 2, Sunbury, Pa.
 Shoemaker, John F. Mt. Bethel, Pa.
 Shoemaker, M. M. R. 1, Walnutport, Pa.
 Shoemaker, Wm. W. R. 1, Walnutport, Pa.
 Shook, F. R. Penn Argyl, Pa.
 Szilagyi, Geza R. 3, Bath, Pa.
 Willow Brook Farm Catasauqua, Pa.

NORTHUMBERLAND COUNTY—(2 MEMBERS)

Gauger, W. C. Watsonstown, Pa.
 Slocum, George W. Milton, Pa.

PERRY COUNTY—(4 MEMBERS)

Beaver, Bruce E. Millerstown, Pa.
 Beaver, Geo. G. Millerstown, Pa.
 Milligan, Ward R. Loysville, Pa.
 Smith, Ralph L. R. 1, Millerstown, Pa.

PHILADELPHIA COUNTY—(4 MEMBERS)

Dick, G. A. (Dr.) 39th & Woodland, Philadelphia, Pa.
 Jamison, H. E. 219 N. Broad St., Philadelphia, Pa.
 Rosenberger, J. N. (Dr.) 431-7th, 51st St., Philadelphia, Pa.
 Twining, F. M. 401 N. Broad St., Philadelphia, Pa.

PIKE COUNTY—(NO MEMBERS)

POTTER COUNTY—(7 MEMBERS)

Gregory, Paul Court House, Coudersport, Pa.
 Hunt, N. F. R. 2, Westfield, Pa.
 Leete, Roselle Coudersport, Pa.
 Straw, Bert Court House, Coudersport, Pa.
 Traub, L. C. Germania, Pa.
 Burk, Lawrence E. Ulysses, Pa.
 Jones, Harry E. R. 2, Shinglehouse, Pa.

SCHUYLKILL COUNTY—(13 MEMBERS)

Dietz, John Schuylkill Haven, Pa.
 Gauker, Roy Cressona, Pa.

Heisler, Arthur S.	R. D. 1, Tamaqua, Pa.
Herring, Jonathan	Pinegrove, Pa.
Hunter, Roy	R. D. 1, Ashland, Pa.
Lengel, Paul H.	Pinegrove, Pa.
Lindner, Henry E.	Ringtown, Pa.
Ludwig, Robert	R. D., Hegins, Pa.
Paxson, I. Earl	Schuylkill Haven, Pa.
Rhein, U. E.	R. D., Pinegrove, Pa.
Richards, Maul	Pottsville, Pa.
Riegel, A. T.	Schuylkill Haven, Pa.
Wagner, Webster	Middleport, Pa.

SNYDER COUNTY—(NO MEMBERS)

SOMERSET COUNTY—(7 MEMBERS)

Ditto, Wm. O.	Somerset, Pa.
Hickok, Asa (Dr.)	Somerset County Home, Somerset, Pa.
Hostettler, Noah	Holsopple, Pa.
Kelly, Harry	R. 4, Johnstown, Pa.
Meyers Bros.	Meyersdale, Pa.
Patton, A. J.	Brackney, Pa.
Yoder, Menno	Meyersdale, Pa.

SULLIVAN COUNTY—(1 MEMBER)

Rohe, F. V.	Dushore, Pa.
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SUSQUEHANNA COUNTY—(3 MEMBERS)

Dale, N. C.	Montrose, Pa.
Shay, George R.	Thompson, Pa.
Wilmot Bros.	Jermyn, Pa.

TIOGA COUNTY—(8 MEMBERS)

Bonnell, Dan	Liberty, Pa.
Brodrick, R. M. & Son	Mansfield, Pa.
Butler, D. R.	R. 1, Knoxville, Pa.
King, U. O. & Son	R. 1, Knoxville, Pa.
Norman, Albert	Liberty, Pa.
Reinsel, Donald	Knoxville, Pa.
Roupp, Grant, Jr.	Liberty, Pa.
Seeley, H. L.	Elkland, Pa.

UNION COUNTY—(7 MEMBERS)

Brouse, Oscar	Vicksburg, Pa.
Cole, Floyd L.	Mifflinburg, Pa.
Craumer, L. E.	Lewisburg, Pa.

Slifer, A. C.	Lewisburg, Pa.
Voneida, David E.	Lewisburg, Pa.
Wissinger, J. H.	Laurelton, Pa.
Yarger, Foster D.	Mifflinburg, Pa.

VENANGO COUNTY—(8 MEMBERS)

Baker, John E.	R. 5, Titusville, Pa.
Ghering, E. B.	R. D. 4, Titusville, Pa.
Ifft, E. G.	Court House, Franklin, Pa.
Morrison, D. H.	Van, Pa.
Polk State School (G. L. Weaver)	Pol, Pa.
Sharp, Harry I.	Diamond, Pa.
Whitman, Harry W.	R. 1, Diamond, Pa.
Zeiders, W. E.	Box 342, Franklin, Pa.

WARREN COUNTY—(1 MEMBER)

Frantz, C. J. (Dr.)	Warren, Pa.
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WASHINGTON COUNTY—(1 MEMBER)

Bock, H. O.	McDonald, Pa.
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WAYNE COUNTY—(10 MEMBERS)

Canfield, C. E.	Damascus, Pa.
Ferris, Seely	Honesdale, Pa.
Haldeman, Walter L.	Honesdale, Pa.
Hauenstein, F. W.	R. 1, Waymont, Pa.
Hill, Lewis	Lookout, Pa.
Hutchinson Bros.	R. 1, Honesdale, Pa.
Kinross, R. M.	Honesdale, Pa.
McKeehen, J. E.	Honesdale, Pa.
O'Neill, Wm. B.	R. 1, Pleasant Mt., Pa.
Robinson, H. A.	Seelyville, Pa.

WESTMORELAND COUNTY—(18 MEMBERS)

Albright, Ralph W.	60 Bank & Trust Bldg., Greensburg, Pa.
Gongaware, J. C.	Cross Rds. Farm, Greensburg, Pa.
Heath, S. W.	Belle Vernon, Pa.
Kim, Joseph	Larimer, Pa.
Lynch, James	New Florence, Pa.
Martin, J. P.	R. 2, Blairsville, Pa.
Miller, H. F.	R. 2, Ruffsedale, Pa.
Moffat, John & Sons	New Alexandria, Pa.
Rathgeb, Michael	R. 3, Greensburg, Pa.
Silvis, B. W.	R. D. 1, Export, Pa.
Stahl, G. O.	Smithton, Pa.
Stoneman, W. A.	R. D. 2, Belle Vernon, Pa.

Todd Bros.....	R. 2, Belle Vernon, Pa.
Turner, J. Calvin.....	Princedale, Pa.
Westmoreland County Home.....	Greensburg, Pa.
White, Edwin L.....	New Kensington, Pa.
Wineman, J. E.....	Box 1, Youngwood, Pa.
Wohlwend, I. C.....	Salina, Pa.

WYOMING COUNTY—(NO MEMBERS)

YORK COUNTY—(9 MEMBERS)

Arnold, J. Raymond.....	Hellam, Pa.
Brant, John S.....	Dallastown, Pa.
Burdick, G. A.....	Wrightsville, Pa.
Garber, J. S.....	1337 E. Market St., York, Pa.
Green, Clarence.....	201 N. Highland Ave., York, Pa.
Hamml, J. J.....	Abbottstown, Pa.
May, C. Allen.....	York, Pa.
Poorbaugh, J. A.....	R. 3, York, Pa.
Schaefer, Wm. F., Jr.....	R. 3, York, Pa.

OUT OF STATE—(7 MEMBERS)

Dennison, H. E.....	East Lansing, Mich.
Folwell, Mary C. (Mrs.).....	R. D. 2, Newark, Delaware
Gockley, Roy R.....	Dairymen's League, New York City
Holstein World.....	Locona, N. Y.
Schaffer, O. G.....	420 Lexington Ave., New York City
Waddington, A. B.....	Woodstown, N. J.
Whittaker, T. P.....	Brandon, Vt.

**End of
Volume**